USE OF THE CONSERVATION NEEDS INVENTORY AND SOIL MANAGEMENT GROUPS AND UNITS TO EVALUATE SOME SOIL-LAND USE RELATIONSHIPS IN MICHIGAN'S LAND RESOURCE AREAS

By

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ABSTRACT

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The Conservation Needs Inventory (CNI) in 1967 inventoried soil and land use on non-federal and non-urban lands by Land Resource Area's (LRA's). Michigan's Soil Management Groups were added to the CNI data and soil-land use relationships were evaluated for each of the LRA's.

Four soil formation factors were found to affect the distribution of land use; climate, slope, natural drainage and parent material. Climatically the state is divided into north and south. Land use in the north was dominated by forestry and in the south by cropland. Generally, as slope increased, natural drainage became poorer and parent material became coarser textured, the percentage of cropland uses decreased and the percentage of forestry increased.

It was also determined that in 1967 significant acreage of potentially good and potentially prime farmland was in non-agricultural uses and could be shifted into agricultural production if the need arose.

I wish to dedicate this work to my wife Nancy. She is as responsible for it as am I.

ACKNOWLEDGMENTS

No work of this nature is a single-handed effort and thanks are in order for all those who contributed. Thanks are extended to Dr. E. P Whiteside for his long hours of organizing, guiding and reviewing each step as it progressed. Mrs. Whiteside should be thanked also for her patience and understanding during the 5 years of this project. Dr. Lynn Robertson, Dr. Henery Foth and Dr. Harold Winters are to be thanked for their contributions to the guidance committee, especially Dr. Robertson for stepping in as Major Professor at the last minute.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES - Continued.

LIST OF TABLES - Continued

LIST OF TABLES - Continued

LIST OF TABLES - Continued

LIST OF TABLES - Continued

LIST OF TABLES - Continued

LIST OF FIGURES

1. INTRODUCTION

Michigan provides a wide variety of soils and land uses. It's glacial history provides the state with youthful soils rich in nutrients capable of supporting lush forests in the north and productive farms in the south. The humid continental climate provides a limited growing season and ample moisture for it's diverse flora and fauna.

As recent as 14,800 years ago (Sommers et al, 1978) glacial ice covered most of the state. Moving ice and meltwaters provided a complex pattern of glacial landforms burying the bedrock in most places. These moraines, till plains, outwash and lake plains, and other glacial landforms provided the sediments in which our modern soils have formed.

When the early Europeans came to Michigan most of the soils were covered with vast forests. The early Michiganders cleared the forests and established a lucrative agriculture. Currently agriculture and forestry are the two major land uses in Michigan, Table 1.

The Conservation Needs Inventory (CNI) was established to inventory these varied soil resources and land uses. Inventories were made in 1958 and in 1967. It is the data from 1967 that forms the basis for this study.

Table 1.--Land uses and their percentages by LRA.

Use	LRA 92 Acreage	%	LRA 93 Acreage	%	LRA 94N Acreage	%	LRA 94S Acreage	%	LRA 96 Acreage	%
Row Crops	230	tr.	27,009	0.5	436	tr.	201,457	2.7	55,341	4.1
Small Grains	16,283	2.7	116,713	2.3	71,853	2.6	212,819	2.8	53,767	3.9
Sod Crops	8,367	1.4	113,437	2.3	56,372	2.0	634,220	8.4	125,155	9.2
Idle	9,791	1.6	66,750	1.3	52,806	1.9	425,315	5.6	139,993	10.3
Fruit	230	tr.	210	tr.	0	0.0	23,716	0.3	90,747	6.6
All Cropland	34,901	5.8	324,119	6.4	181,466	6.5	1,497,507	19.8	465,004	34.1
Pasture	9,421	1.6	82,933	1.6	22,560	0.8	431,497	5.7	107,971	7.9
Forest	557,157	91.8	4,539,634	90.2	2,542,926	91.3	5,382,942	71.3	703,635	51.6
Other	5,548	0.9	88,857	1.8	36,940	1.3	239,128	3.2	88,050	6.5
TOTAL:	607,026	100.0	5,035,533	100.0	2,783,893	99.9	7,551,075	100.0	1,364,660	100.1

Use	LRA 97 Acreage	%	LRA 98 Acreage	%	LRA 99 Acreage	%	LRA 111 Acreage	%	STATE TOTAL Acreage	%
Row Crops	193,514	18.3	1,529,760	19.6	1,479,143	35.0	271,752	48.2	3,758,622	12.1
Small Grains	82,829	7.9	990,607	12.7	694,439	16.4	80,133	14.2	2,319,443	7.5
Sod Crops	117,952	11.2	1,527,920	19.5	553,282	13.1	58,702	10.4	3,195,407	10.3
Idle	139,928	13.3	805,593	10.3	320,761	7.6	17,782	3.4	1,978,719	6.4
Fruit	124,116	11.8	54,772	0.7	13,309	0.3	6,227	1.1	313,327	1.0
All Cropland	658,339	62.4	4,908,651	62.8	3,060,934	72.5	434,595	77.2	11,565,516	37.3
Pasture	42,650	4.0	445,179	5.7	122,145	2.9	30,081	5.3	1,294,437	4.2
Forest	279,721	26.5	1,765,623	22.6	767,769	18.2	75,633	13.4	16,615,040	53.6
Other	73,879	7.0	699,614	8.9	273,315	6.5	22,740	4.0	1,526,071	4.9
TOTAL:	1,054,587	99.9	7,819,067	100.0	4,224,167	100.1	563,049	100.0	31,003,057	100.0

tr. = trace - less than 0.1

The purposes of this study were two-fold. First, an evaluation of land use and soil relationships was wanted. It was done on a regional basis using the U.S.D.A. Land Resource Areas (LRA'S) shown in Figure 1. Within each LRA the soils information was evaluated using Michigan's Soil Management Groups and Units (SMG's and SMU's).

The second basic purpose of this study was to provide interested users information from the CNI in a form easier for them to use. The appendices are filled with land use information by SMU's in each LRA of Michigan (Appendix A to I) plus the soil series, and acreage in each SMG and it's percentage of the CNI inventory acreage.

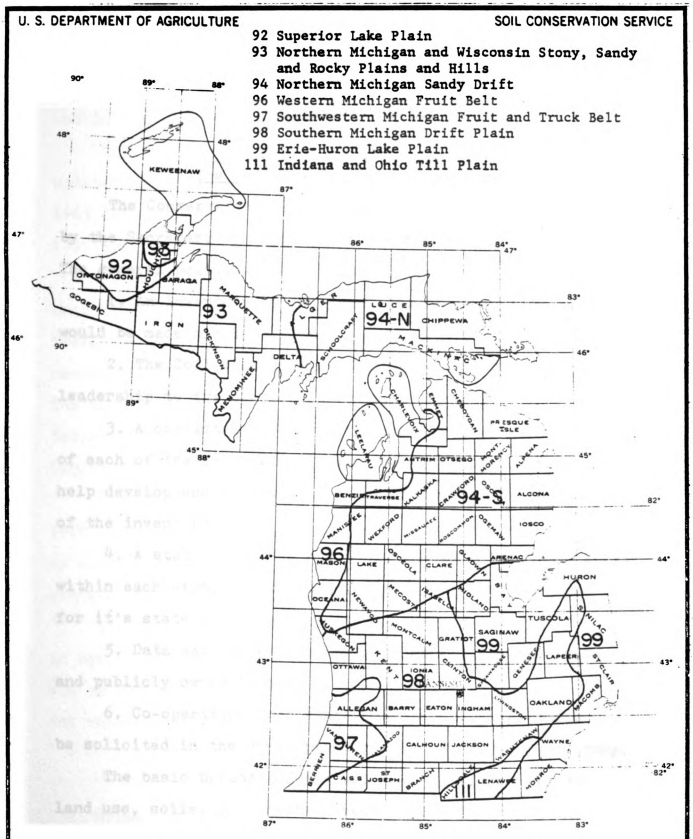

Figure 1. Land Resource Areas of Michigan.

2. LITERATURE REVIEW

The Conservation Needs Inventory

The Conservation Needs Inventory was established by the Secretary of Agriculture (Benson, 1956) in 1956. The general policies are outlined below:

1. An inventory of soil and water conservation needs would be made and kept current.

2. The Soil Conservation Service was to provide leadership to the many co-operating agencies.

3. A committee was to be formed with representives of each of the co-operating agencies. The committee would help develop and review procedures and guide the progress of the inventory.

4. A state committee was to be formed from co-operators within each state or territory. It would develop a plan for it's state inventory.

5. Data was to be developed separately for privately and publicly owned lands.

6. Co-operation from state and local sources would be solicited in the development and review of the inventory.

The basic purpose of the CNI was to gather data on land use, soils, conservation needs and watersheds (Conservation Needs Committee, 1960). Procedures were established to obtain statistically reliable results based

on their sampling methods and intensity (Adams, 1964 and Conservation Needs Committee, 1960).

The data for the 1958 inventory was unavailable for use in this study.

In 1967 land use, with minor sampling changes, was updated on the 1958 sampling areas (Soil Conservation Service, 1965 and Conservation Needs Committee, 1968). It is the 1967 data that forms the basis for this study.

Aside from the information contained in this study much is available from the 1967 CNI. The Conservation Needs Committee, 1968, provided land use and treatment needs information by Land Capability Sub-class and county. The Soil Conservation Service, 1974, has provided updated tables of soils, land use and treatment needs by Land Capability Unit (LCU), LRA and county.

Other uses have been made of the CNI. Arnold et al, 1960, used the 1958 CNI for Iowa to estimate slope classes by counties and Lee, 1978, used the 1967 data to estimate changes in cropland availability on a national basis.

The CNI in Michigan has been used to estimate trends in agricultural land use (Whiteside and Schaner,1972) and as supporting data for attempts to preserve essential and unique farmlands (Agricultural Land Subcommittee, 1974).

Soil Management Groups and Units

Mokma and Robertson, 1976, defined SMG's as a combination of soil series with similar dominant profile textures, natural drainage classes and other characteristics (acidity, carbonates,

etc.). Numbers from 0 to 5.7 are given to dominant profile textures and lower case letters a, b or c are given for well drained, somewhat poorly drained and poorly drained groups, respectively. The Soil Management Unit (SMU) is a combination of the SMG, slope class and erosion class.

SMG's have been used extensively in Michigan for intrepretive uses such as crop yield potentials (Warncke and Christenson, 1980), evaluation of farmland and it's use (Priest et al, 1963), estimates of success with no-till corn (Robertson et al, 1976), estimates of organic matter levels in cornfields (Mokma et al, 1976) and the design of drainage systems (Engberg et al, 1963).

SMG's have also been used for non-agricultural uses. Such uses have included comparison of performance of septic tank disposal fields (Mokma and Whiteside, 1972) and the design of systems for municipal waste water disposal (Schneider and Erickson, 1972). The degree of limitation for uses such as residential development (with and without public sewers), highway construction, and parks and recreational uses have also been developed (Mokma et al, 1974).

The use of SMG's is unique to Michigan, however, North Carolina is using a similar interpretive classification system (Buol et al, 1975). Their system is called the Fertility Capability Soil Classification System, and it's similarities include classification by dominant texture, units for two storied soils and provision for special conditions such as acid or basic reaction or calcareous conditions.

The Soil Conservation Service uses a Land Capability

Classification system for interpretative purposes (Klingebiel and Montgomery, 1961). They first group soils into eight classes based on degree of limitation for agricultural production. Classes are broken down into sub-classes by kinds of limitations, such as erosion, rooting zone, climate or wetness problems. Land Capability Units (LCU's) are groups of similar soils within a sub-class. LCU's approximate the same degree of generalization as the SMU's and were provided with the CNI.

Soils and Land Use of Michigan

Soils and land use in Michigan have been studied and described many times. In 1938, in conjunction with the then new classification system (U.S.D.A., 1938), soil areas were described, some of which were from Michigan. Kellogg (1951) also briefly described some of Michigan's soils.

Veatch (1953) provided the first comprehensive description and map of Michigan's soils and land use. He provided a fairly detailed classification of the contemporary soil series and discussed soil associations. He also discussed use and significance of different soil groups (for example, peat and muck soils and hilly sandy soils in southern Michigan).

Hill and Mawby (1954) discussed types of farming in Michigan and divided the state into 17 type-of-farming areas that approximated the LRA's. In the same bulletin Schneider provided and discussed a soil association map based on Veatch's work. Whiteside et al (1968) also used Veatch's basic association map and discussed soils and land

use trends in Michigan.

Recent land use trends are discussed in many places (Conservation Needs Committee, 1958, Whiteside and Schaner, 1972, Wright, 1974, Michigan Department of Agriculture, 1975, Sommers et al, 1978 and Wright and Ferris 1981). Most of these agree that urbanization is encrouching upon needed agricultural lands and some method is needed to preserve agricultural lands.

Prime, Unique, Good and Essential Farmland

Mokma et al (1980) defined prime farmland as land best suited for crop production that gives highest sustained yields with minimum inputs and results in the least damage to the environment. They also provided a list of soil series and their phases in Michigan that would qualify as prime farmland. The Soil Conservation Service (1980) listed current mapping units in Michigan that would qualify as prime farmland. They also defined unique farmland as non-prime farmlands used for the production of special crops. Unique lands have characteristics which produce high quality or yields of those special crops. Unique cropland was restricted in this study to lands in LRA 96 and 97 on which fruit crops were grown.

Specific criteria for good farmland was provided by Whiteside (1981). It was to be non-prime farmland capable of moderate to high quality and yields with moderate inputs. This defination included the non-prime lands of the essential farmlands defined by the Agricultural Land

Subcommittee (1974). They combined prime, unique and good farmland and called it essential farmland because they believed it was essential to Michigan's agricultural future.

The desire to preserve essential farmland has been recognized at the national level also. Lee (1978) concluded that between 1967 and 1975, 4.5 million acres of prime farmland was lost to competing uses and that a great need exists to study the costs of developing essential farmland. Larson (1981) suggested that by the year 2000 the nation's cropland will be fully used to fill the demand for agricultural products. Gray (1981), Gordon (1981) and Lee (1981) also expressed concern that future expansion of cropland would have to come from non-prime lands.

3. PROCEDURES

Introduction

The 1967 Soil and Water Conservation Needs Inventory was a part of the National Inventory of Soil and Water Conservation Needs established by the Secretary of Agriculture in 1956 (Benson, 1956). Agencies co-operating in the 1967 inventory were:

United States Department of Agriculture
- Agriculture Stabilization and Conservation Service
- Economic Research Service
- Farmers Home Administration
- Forest Service
- Soil Conservation Service
- Statistical Reporting Service

United States Department of Commerce
- Environmental Science Series Administration,
  - State Climatologist

United States Department of Interior
- Fish and Wildlife Service
  - Bureau of Sports, Fisheries and Wildlife

State of Michigan
- Department of Agriculture
- Department of Economic Expansion
- Department of Education

Vocational Education Division

Department of Natural Resources

Water Resources Commission

Michigan State University

College of Agriculture and Natural Resources

Michigan Association of Soil Conservation Districts, Inc.

State Soil Conservation Committee

The objectives of the inventory were to develop detailed data on land use and conservation treatment needs by soils and obtain data on watershed project needs.

The 1958 Conservation Needs inventory was commissioned in 1956, and data was collected between January, 1958 and January 1960. All data referred to 1958. Data from 1958 was unavailable for this study, however, summaries are available (Conservation Needs Committee, 1960).

In 1965 an update was commissioned and field work was completed in 1967. It is the primary data from the 1967 inventory that forms the basis for this study.

At the time of this writing there is another update in progress that should be finished by 1982 or 1983.

Scope

The total land area of Michigan according to the 1967 CNI was 36,514,587 acres. This figure does not include lakes and water areas greater than 40 acres in size, or streams greater than one-eight of a mile in width. The actual inventory acreage for 1967 was 31,013,053

acres. This figure was determined by subtracting from the total all non-included federal land (2,767,095 acres), urban and built-up land (2,594,730 acres) and small water areas (139,709 acres).

Definition of Terms

1. Federal land: Land owned by the federal government, except cropland operated under lease or permit and Indian lands owned by individuals or tribes which are under trusteeship. These federal lands were not part of the inventory and are primarily national forests, military installations, wildlife refuges and hospitals.
2. Urban and Built-up Areas: These were cities, villages and areas greater than 10 acres in size that were built-up industrial sites, railroad yards, cemeteries, airports, golf courses, shooting ranges, institutional and public administrative sites and similar types of areas. These were not included in the inventory.
3. Water Areas: These included ponds and lakes between 2 and 40 acres in size and rivers and streams less than one-eight mile in width.
4. Cropland: The following types of cropland were included in the inventory:
   - A. Tillage Rotation
     - (1) Field Crops
       - a. Row Crops
         - (1) Corn and Sorghum: included corn and sorghum whether grown in rows or

broadcast, and regardless of use (grain, silage or forage).

(2) All other row crops: included soybeans, sugarbeets, field beans, vegetables, potatoes and all other cultivated row crops.

(3) Summer fallow: was usually cropland in semi-arid areas being fallowed.

b. Small Grains (close grown row crops): included small grains (wheat, barley and oats) and other close-seeded crops not usually grown in rows and tilled. These type crops were included even if they were used for temporary hay or pasture.

c. Sod Crops:

(1) Rotation hay and pasture: was grasses or legumes used for hay or pasture as part of a crop rotation management system.

(2) Hayland: was land permanently used for forage. Stand improvement measures had been taken. Also included were other areas where hay or seed was harvested and then pastured or allowed to grow forage.

(3) Conservation use only: was cropland in grasses, legumes or small grains that were not harvested or pastured. This included land diverted from cropland by federal programs.

B. Idle

(1) Temporarily idle cropland: was land in none of the other cropland uses but had been during one or more of the previous three years.

(2) Open land formerly used for crops: was the same as temporarily idle cropland, except it had not been used for three years and was not being purposely converted to another use.

C. Orchards, Vineyards and Bush Fruit: was land in fruit production regardless of intertilling or pasturing.

5. Pasture Land: was land in grasses or other long term forage that was used primarily for grazing. It did not include rotation hay and pasture defined under cropland. It could contain up to a 10 percent canopy of timber or shade trees.

6. Forest Land: was land at least 10 percent stocked by forest trees of any size and capable of producing timber or wood products. Land on which the trees were removed to less than 10 percent and was not developed for any other purpose and planted forests (grazed or ungrazed) were also forest land. Included was forested non-federal parks, wildlife refuges and the like.

7. Other Lands: were rural, non-federal land not falling into any of the other land use classes or non-inventory groups. It included farmsteads, fence rows, feedlots, non-farm residences and their acreage, investment acreage and dunes and marshes not used for grazing.

8. Prime Farmland: Land with the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. It has the quality, growing season, and moisture supply needed to produce a sustained high yield of crops when managed (including water management) and treated according to acceptable farming methods. Prime farmlands have adequate and dependable water supply (from precipitation or irrigation), temperature and growing season that is favorable, no extremes in reaction, a reasonable salt and sodium content, few or no coarse fragments, good permeability to air and water, not excessively erodible, not saturated with water for long periods of time and do not flood frequently or are protected from flooding. These soils must be on slopes less than 6 percent and have none, slight or moderate erosion. Included SMG's are 1a, 1b, 1c, 1.5a, 1.5b, 1.5c, 2.5a, 2.5b, 2.5c, 2.5c-c, 2.5c-s, 2.5c-cs, 3a, 3a-m, 3a-s, 3b, 3b-s, 3c, 3c-s, 3/1a, 3/1b, 3/1c, 3/2a, 3/2b, 3/2c, 3/5a, 3/5a-a, 3/5a-m, 3/5b, 3/5c, L-2a, and L-2c. Potentially prime farmland is used for lands in these SMG's because it is not known if they do meet the specific criteria, even though they are capable of meeting it.

9. Unique Farmland: Land other than prime that is used to produce a specific high value food or fiber crop. It has the specific conditions (location, soil quality, growing season, etc.) to maintain high yields of the specific crop when treated and managed according to

acceptable farming methods. It has been used here only for non-prime farmlands in LRA 96 and 97 upon which fruit crops were grown.

10. Good Farmland: Land, excluding prime and unique farmland that is capable of producing reasonably high crop qualities and yields when managed and treated according to modern methods of farming. These lands will economically produce moderate crop yields with low or moderate inputs of energy and capital. Included SMG's (Whiteside, 1981) are all non-prime SMG's except 4/Ra, 5a, 5a-h, 5a-m, 5.3a, 5.7a, 5b, 5b-h, Mc-a, Ga, Gbc, G/Ra, Ra and Rbc (Table 3). Slopes must not exceed 18 percent (12 percent for soils in SMG's 0a, 0b, and 0c) and erosion must be moderate or less. The term potentially good farmland is used herein because it is not known if specific areas will meet the specific criteria.
11. Essential Agricultural Land: Essential lands are the sum of prime lands, good lands and unique farmland.
12. Toposequence: A sequence of soils that differ only in slope or natural drainage (Jenny, 1980). Thus SMG's 1a, 1b, and 1c form a toposequence within a LRA.
13. Lithosequence: A sequence of soils that differ only in parent material (Jenny, 1980). SMG's 0a, 1a, 1.5a, etc. form a lithosequence within a LRA.

Sampling Methods

For the 1958 data the statistical Labratory at Iowa State University randomly selected a 2 percent sample for

each county. This was done such that 3 quarter sections per township were selected. Two sets of sample areas were selected for each county. In counties of 250,000 to 500,000 acres in size only one set of sample areas were used. Adams (1964) reported that at the 2 percent sample rate the error would occur as presented in Table 2.

Table 2.--Standard error of the CNI

Percent of area having the condition	Relative standard error(%)	
	County	State
1	59	5.9
5	26	2.6
10	18	1.8
25	10	1.0
50	6	0.6
75	3	0.3
100	0	0

The average sized county was figured to have 48 sample areas in it. The average sized state was assumed to contain 100 average sized counties. All LRA's in Michigan are larger than the average sized county making all errors smaller than those reported for the county-sized areas.

Counties exceeding 500,000 acres had a reduced sampling rate and counties smaller than 250,000 acres were sampled more intensively to maintain the same approximate degree of precision.

The 1967 update used a point sampling method. A template containing rows of dots was centered on each of the

mapped areas and spun. Where each dot occurred (36 per sample area) on the map a sample point was located.

Each of the sampling points were visited and land use and conservation treatment needs were determined. The area in the vicinity of the point, not just the point, was considered in assigning land use and treatment needs. Those points that fell in a farm pond of less than 2 acres were considered to be on the adjoining uplands. If a point fell on a soil boundary the point was considered to be in the map unit north or east of the line.

When the field work was done the data was coded onto forms and sent to Iowa State University. An expansion factor was calculated for each county such that the sum of the acreages equaled the total county inventory acreage (number of data points times the expansion factor).

The Iowa expansion factors and all data from the coded forms was punched onto computer cards and transfered to magnetic tape for computer processing.

Analytic Procedures

In 1978 a copy of the tape containing the 1967 CNI data for Michigan was ordered from the Iowa State University Statistical Laboratory. The tape was stored in the Computer Laboratory at Michigan State University. Computer processing was done by the Control Data Corporation 6500 computer.

A program was written to add the SMG's (Table 3) to each of the 145,467 data points. After the SMG's had been added the data was grouped by LRA. Within each LRA the

Table 3.--Soil management groups in Michigan

Dominant Profile Texture	Symbols	Natural Drainage Classes: Mineral Soils: Well and Moderately Well Drained (a)	Mineral Soils: Somewhat Poorly Drained (b)	Mineral Soils: Poorly and Very Poorly Drained (c)	Organic Soils (M) Very Poorly Drained: 16-51" thick (c)	Organic Soils (M) Very Poorly Drained: over 51" thick (c)
Fine Clay (over 60%)	0	0a	0b	0c	M/1c	Mc
Clay (40-60%)	1	1a	1b	1c		
Clay loam and silty clay loam	1.5	1.5a	1.5b	1.5c	M/3c	
Loam and silt loam	2.5	2.5a	2.5b	2.5c		
Sandy loam, 14-40", over clay	3/1	3/1a	3/1b	3/1c		
Sandy loam, 20-40", over loam to silty clay loam	3/2	3/2a	3/2b	3/2c		
Sandy loam	3	3a	3b	3c		
Sandy loam, 20-40", over sand and gravel	3/5	3/5a	3/5b	3/5c		
Loamy sand, 14-40", over clay	4/1	4/1a	4/1b	4/1c		
Loamy sand, 20-40", over loam to silty clay loam	4/2	4/2a	4/2b	4/2c	M/4c	
Loamy sand	4	4a	4b	4c		
Sand to loamy sand, 40-60", over loam to clay	5/2	5/2a	5/2b	5c		
Sand with moderate to strong subsoil development	5.0	5a	5b	5c		
Sand with minimal subsoil development	5.3	5.3a	5b	5c		
Sand with little or no subsoil development	5.7	5.7a	5b	5c		
Gravelly or stony loamy sand to loam	G	Ga	Gbc	Gbc		
Alluvial or Lowland Areas	L				L-Mc	
loamy	L-2	L-2a	L-2c	L-2c		
sandy	L-4	L-4a	L-4c	L-4c		
Marl	m				M/mc	
Bedrock, less than 20"	R	Ra	Rbc	Rbc		
Loam, 20-40", over bedrock	2/R	2/Ra			M/Rc	
Sandy loam, 20-40", over bedrock	3/R	3/Ra	3/Rbc	3/Rbc		
Sand to loamy sand, 20-40", over bedrock	4/R	4/Ra	4/Rbc	4/Rbc		

(a) When the following slope class letters are added to the soil management group symbols these slope phases are soil management units.

Slope classes: A = 0-2% slope
B = 2-6% slope
C = 6-12% slope
D = 12-18% slope
E = 18-25% slope
F = 25+% slope

data was sorted by major groupings of SMG's. It was then printed onto print-out sheets.

The primary data was manually sorted for land use within each SMG. Appendices A through I list each of the LRA's broken down by land use and SMU. The sorting was done manually because of bugetary constraints at the time and took about 42 person months to complete.

All manual work was rechecked and errors were systematically reduced until no error exceeded 1.0 percent of a major grouping of SMG's (for example all SMG's beginning with a 3 in LRA 98). The residual errors were deducted from or added to the land use-SMU combination with the greatest acreage in the largest SMG.

A and B slope classes (0 to 6 percent) were combined on SMG's beginning with a 4 or a 5 in the appendices. This was done to be consistent with recently published soil surveys. Erosion classes 0, 1 and 2 were also combined and reported as a single unit as were erosion classed 3, 4 and 5. These changes also agree better with recently published soil surveys.

In the discussion of Soils and Land Use in each LRA SMG's were selected for discussion that had at least 30,000 acres or contained 5 percent or more of the LRA.

4. DISCUSSION

LRA 92

LRA 92, the Superior Lake Plain, is located in the western end of Michigan's Upper Peninsula (Figure 1). The total inventory acreage was 607,026 acres. This was 2.0 percent of the state's inventory acreage.

This LRA is characterized by broad flat lake plains. More than 90 percent was forested in 1967.

Soils

Table 4 lists the acreage of each of the SMG's that occurred in the LRA and its percentage of the LRA. Fine textured soils (SMG's Oa, Ob, 1c, 1.5a, and 1.5c) accounted for 39.9 percent (242,068 acres) of the LRA. Medium textured soils (SMG's beginning with a 2 or a 3) occupied 25.9 percent (156,835 acres) of the LRA. Coarse textured soils (SMG's beginning with a 4 or a 5) occupied 27.7 percent (167,972 acres) of the LRA. The remaining 6.4 percent (40,152 acres) was occupied by alluvial, organic or gravelly soils and non-soil material.

Well drained soils occurred on 78.7 percent (478,083 acres) of the LRA. The somewhat poorly drained soils occupied 13.3 (81,095 acres) of the LRA. The remaining 7.7 percent (47,620 acres) was occupied by poorly and very poorly drained soils and non-soil material.

Slopes were fairly flat with 64.5 percent of the LRA having less than 6 percent slopes. Slopes from 6 to 18

Table 4.--SMG's, their acreage, and percentage of LRA 92.

SMG	Acreage	Percent	SMG	Acreage	Percent
0a	74,340	12.2	4a-a	18,908	3.1
0b	31,902	5.3	4b	9,433	1.6
1c	6,667	1.1	4/1b	2,984	0.5
1.5a	125,716	20.7	4/2b	3,902	0.6
1.5c	3,443	0.6	4/2b-s	3,672	0.6
2.5a-a	9,640	1.6	4/2c	459	0.1
2.5a-s	22,908	3.8	5a	19,282	3.2
2.5b-s	5,890	1.0	5b	1,377	0.2
2.5c-s	4,494	0.7	5/2a	230	tr.
3a-a	80,284	13.2	5/2b	11,934	2.0
3b	1,607	0.3	5.3a	68,912	11.4
3b-a	3,115	0.5	L-2c	24,984	4.1
3c	208	tr.	Mc-a	230	tr.
3/1b	459	0.1	M/1c	642	0.1
3/1c	1,148	0.2	M/4c	5,137	0.8
3/2b	4,820	0.8	M/mc	208	tr.
3/Ra	22,262	3.7	Ga	8,721	1.4
4a	26,880	4.4	Misc.	230	tr.
			TOTAL:	607,028	99.9

tr. = trace - less than 0.1

percent accounted for 18.5 percent of the LRA. The other 17.0 percent of the LRA had slopes in excess of 18 percent.

Potentially prime farmland accounted for 24.8 percent of the total LRA. Potentially good farmland accounted for an additional 41.5 percent. No unique farmland occurred in this LRA.

Some soils with acid solums occurred in LRA 92, distinguishing it from most other LRA's outside the western Upper Peninsula. These soils occupied 18.5 percent (112,177 acres) of the LRA.

Land Use

The dominant land use in LRA 92 was forestry, Table 1. It occurred on 91.8 percent of the land. Row crops and fruit crops occupied trace percentages. Small grains, sod crops and idle accounted for 2.7, 1.4 and 1.6 percent, respectively. Total cropland and pasture land accounted for 5.6 and 1.6 percent, respectively. The remaining 0.9 percent was other uses.

Soils and Land Use

Appendix A lists the acreage of each of the major land uses in each of the SMU's in LRA 92.

Table 5 breaks SMG Oa down by SMU's and land uses, and gives percentages of major slope classes. There were 689 acres of forested lands on E or higher slopes that are not included in the table.

Note the declining percentage of cropland as slope increases. On slopes up to 6 percent, 18.6 percent was cropland. Cropland dropped to 12.7 percent on slopes from 6 to 18 percent and was absent on slopes greater than 18 percent. Each of the uses within cropland displayed a similar trend, except row crops which were absent on all slopes.

Pasture doubled as a percentage of the moderate slopes relative to the gentle slopes. It was insignificant as a use on the steeper slopes. Forests occupied about 75 percent of slopes up to 18 percent, and over 95 percent of the steeper slopes.

Since the 0a and 0b soils differ mostly in internal drainage, the differences in land use, Table 6, can be roughly attributed to the increased wetness of the 0b soils.

Note the greater percentage of forestry on the same slopes (A and B) on the wetter soils (0b) as compared to the same slopes of SMG 0a (Table 5, columns 1 and 2). Cropland occupied a greater percentage of land on the dryer soils, presumably because of the high cost of drainage on land in a marginal agricultural area, and the problems that excess soil water causes on soils with short growing seasons.

Comparing uses on soils in the 1.5a SMG, Table 7, with those in the 0a SMG suggests that the finer soils were used more intensively that the slightly coarser soils. Total cropland was 18.6 percent of the gentle slopes of land in the 0a SMG and only 4.7 percent on the same slopes

Table 5.--Land uses and percentage of slope classes in SMG 0a in LRA 92.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	2,875	8.9	437	5.0	0	0.0	3,312	4.5
Sod Crops	853	2.6	208	2.4	0	0.0	1,061	1.4
Idle	2,295	7.1	459	5.3	459	1.4	3,213	4.3
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	6,023	18.6	1,104	12.7	459	1.4	7,586	10.2
Pasture	2,000	6.2	1,148	13.2	230	0.7	3,378	4.5
Forest	24,132	74.5	6,426	74.0	31,902	97.9	63,149	84.9
Other	230	0.7	0	0.0	0	0.0	230	0.3
TOTAL:	32,385	100.0	8,678	100.0	32,591	100.0	74,340	100.0

Table 6.--Land uses and percentage of SMG 0b in LRA 92.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	918	2.9
Sod Crops	1,607	5.0
Idle	0	0.0
Fruit	0	0.0
All Cropland	2,525	7.9
Pasture	918	2.9
Forest	28,459	89.2
Other	0	0.0
TOTAL:	31,902	100.0

Table 7.--Land uses and percentage of slope classes in SMG 1.5a in LRA 92.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	230	0.3	0	0.0	0	0.0	230	0.2
Small Grains	3,089	3.4	0	0.0	0	0.0	3,089	2.5
Sod Crops	459	0.5	0	0.0	0	0.0	459	0.4
Idle	459	0.5	0	0.0	0	0.0	459	0.4
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	4,237	4.7	0	0.0	0	0.0	4,237	3.4
Pasture	918	1.0	230	1.1	0	0.0	1,148	0.9
Forest	84,529	94.0	20,426	98.9	15,148	100.0	120,103	95.5
Other	230	0.3	0	0.0	0	0.0	230	0.2
TOTAL:	89,914	100.0	20,656	100.0	15,148	100.0	125,716	100.0

in SMG 1.5a. The moderate slopes showed a similar trend. Total cropland was 12.7 percent of the moderate slopes on the finer textured soils, and not present in the SMG 1.5a.

Forest land accounted for 94 percent of the A and B slopes, 99 percent of the C and D slopes, and 100 percent of the steeper slopes of the 1.5a SMG.

Table 8 breaks down SMG 3a-a in a similar manner. Note that cropland increased slightly in importance on the moderate slopes. On the gentle slopes, cropland accounted for 7.9 percent while it was 8.5 percent of the moderate slopes. This was entirely attributable to the increase in percentage of grain crops, which was only 3.0 percent of the gentle slopes and 7.7 percent of the moderate slopes. Other cropland uses decreased in percentage as slopes increased.

Pasture land was found only on the moderate slopes where it occupied 3.1 percent of the lands having those slopes.

Forest land exceeded 87 percent of all slope groups and was least on the moderate slopes where small grains and pasture were slightly more common than on other slopes.

Table 9 breaks down SMG 5.3a by slope and land use. It displays a pattern similar to that found in the 3a-a soils. Small grains increased in percentage on the moderate slopes, whereas other cropland uses were not found on those slopes. Forests were fairly constant at about 95 percent of both the slope groups and the total acreage, 10 percent higher than it was on the finer textured 3a-a soils.

Table 8.--Land uses and percentage of slope classes in SMG 3a-a in LRA 92.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	1,450	3.0	2,077	7.7	0	0.0	3,531	4.4
Sod Crops	1,284	2.7	208	0.8	0	0.0	1,492	1.9
Idle	1,070	2.2	0	0.0	0	0.0	1.070	1.3
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	3,808	7.9	2,285	8.5	0	0.0	6,093	7.6
Pasture	0	0.0	830	3.1	0	0.0	830	1.0
Forest	43,317	89.8	23,304	86.8	5,028	96.0	71,649	89.2
Other	1,088	2.3	415	1.5	208	4.0	1,711	2.1
TOTAL:	48,213	100.0	26,834	99.9	5,236	100.0	80,284	99.9

Table 9.--Land uses and percentage of slope classes in SMG 5.3a in LRA 92.

Slope Classes	AB		C+D		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0
Small Grains	856	1.5	629	5.0	1,485	2.2
Sod Crops	459	0.8	0	0.0	459	0.7
Idle	918	1.6	0	0.0	918	1.3
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	2,233	4.0	629	5.0	2,862	4.2
Pasture	459	0.8	0	0.0	459	0.7
Forest	53,675	95.2	11,708	93.3	65,383	94.9
Other	0	0.0	208	1.7	208	0.3
TOTAL:	56,367	100.0	12,545	100.0	68,912	100.1

Potential Future Uses

Over 90 percent of LRA 92 was forested even though about 25 percent of the land in the area was potentially prime farmland. Potentially good farmland accounted for about 40 percent more. Thus, two-thirds of the LRA was potentially good farmland or better. Table 10 and Table 11 indicates the use of the potentially prime and potentially good farmlands, respectively. Note that only 6.1 percent of the potentially prime farmlands were used as cropland and only 7.7 percent of the potentially good farmland was used as cropland. This indicates an under utilization relative to agricultural production. As local and world population increases creating greater needs for food and forage production, a large acreage in LRA 92 could be shifted from forest uses into agricultural production.

Table 10.--Use of potentially prime farmland in LRA 92.

Use	Acreage	Percent
Row Crops	230	0.2
Small Grains	6,414	4.3
Sod Crops	1,312	0.9
Idle	1,148	0.8
Fruit	0	0.0
All Cropland	9,104	6.1
Pasture	1,836	1.2
Forest	138,661	92.3
Other	689	0.5
TOTAL:	150,287	100.1

Table 11.--Use of potentially good farmland in LRA 92.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	8,154	3.2
Sod Crops	5,907	2.3
Idle	5,431	2.2
Fruit	0	0.0
All Cropland	19,492	7.7
Pasture	5,979	2.4
Forest	223,463	88.8
Other	2,837	1.1
TOTAL:	251,771	100.0

LRA 93

LRA 93, the Northern Michigan and Wisconsin Stony, Sandy and Rocky Plains and Hills, occupies most of the western two-thirds of the upper peninsula (Figure 1). The total inventory acreage was 5,035,532 acres. This was 16.2 percent of the state's inventory acreage.

This LRA is characterized by broad flat plains, rolling hills, and large areas of organic soils. Over 90 percent of the area was forested in 1967.

Soils

Table 12 lists the acreage of each of the SMG's that occured in the LRA and their percentage of the LRA. Fine textured soils (SMG's Oa, Ob, 1a, 1c, 1.5a, 1.5b and 1.5c) accounted for 2.5 percent (128,372 acres) of the LRA. Medium textured soils (SMG's beginning with a 2 or a 3) occupied 47.3 percent (2,380,162 acres). Coarse textured soils occupied 28.1 percent (1,415,036 acres) of the LRA. Organic soils accounted for an additional 17.6 percent (884,334 acres). The remaining 4.5 percent (227,629 acres) was alluvial, gravelly and rocky soils, and non-soil materials.

Well drained soils occurred on 67.0 percent (3,371,927 acres) of the LRA. Somewhat poorly drained soils occupied 7.5 percent (378,326 acres), and the poorly and very poorly drained soils occupied 25.5 percent (1,282,098 acres) of the LRA.

Table 12.--SMG's, their acreage, and percentage of LRA 93.

SMG	Acreage	Percent	SMG	Acreage	Percent
0a	33,785	0.7	4/1b	3,570	0.1
0b	25,447	0.5	4/2a	11,347	0.2
1a	691	tr.	4/2b	8,833	0.2
1c	4,590	0.1	4/2b-s	2,138	0.1
1.5a	59,996	1.2	4/2c	4,155	0.1
1.5b	238	tr.	5a	324,928	6.5
1.5c	3,625	0.1	5a-h	4,605	0.1
2.5a	277,710	5.5	5b	48,415	1.0
2.5a-a	32,692	0.6	5b-h	10,349	0.2
2.5a-s	26,718	0.5	5c	57,150	1.1
2.5b	118,000	2.3	5c-a	15,054	0.3
2.5b-s	5,751	0.1	5/2a	475	tr.
2.5c	91,695	1.8	5/2b	3,688	0.1
2.5c-s	3,755	0.1	5.3a	286,245	5.7
3a	172,196	3.4	5.7a	92,265	1.8
3a-a	1,195,600	23.7	L-2a	6,059	0.1
3b	46,990	0.9	L-2c	42,024	0.8
3b-a	68,710	1.4	L-4a	642	tr.
3c	58,837	1.2	L-4c	27,938	0.6
3/1a	230	tr.	L-Mc	9,896	0.2
3/2a	4,347	0.1	Mc	568,075	11.3
3/2b	922	tr.	Mc-a	93,782	1.9
3/5a	6,305	0.1	M/1c	4,920	0.1
3/5a-a	72,997	1.5	M/3c	117,416	2.3
3/5b	5,923	0.1	M/4c	100,141	2.0
3/Ra	183,608	3.7	Ga	33,907	0.7
3/Rbc	7,176	0.1	G/Ra	35,166	0.7
4a	236,031	4.7	Ra	31,377	0.6
4a-a	242,005	4.8	Rbc	37,438	0.7
4b	29,352	0.6	Misc.	3,182	0.1
4c	34,431	0.7	TOTAL:	5,035,533	100.0

tr. = trace - less than 0.1

Two-thirds of the LRA (66.5 percent) had slopes from 0 to 6 percent. Slopes from 6 to 18 percent accounted for 29.5 percent of the LRA, and 3.9 percent was slopes greater than 18 percent.

Potentially prime farmland accounted for 14.9 percent of the total LRA. Potentially good farmland accounted for an additional 61.6 percent. No unique farmland occurred in LRA 93.

About one-third (34.2 percent) of the lands in this LRA were soils with acid subsoils. These were soils formed from the acid parent materials found almost exclusively in the western Upper Peninsula.

Land Use

The dominant land use in LRA 93 was forestry, Table 1. It occurred on 90.2 percent of the land. Row crops accounted for 0.5 percent, small grains and sod crops 2.3, idle 1.3 and fruit crops trace percentages, respectively. Total cropland and pasture land accounted for 6.4 and 1.6 percent, respectively. The remaining 1.8 percent was other uses.

Soils and Land Use

Appendix B lists the acreage of each of the major land uses in each of the SMU's in LRA 93.

Six SMG's are discussed below. These are 2.5a, 3a-a, 4a, 5a, 5.3a and Mc.

Table 13 breaks down SMG 2.5a by SMU and land use. Notice the declining percentage of cropland with increasing slope. Cropland accounted for 36.3 percent of the gently sloping lands, 26.2 percent of the moderately sloping lands and only 10.0 percent of the lands with slopes in excess of 18 percent. Each of the uses within cropland follow the same pattern of decreasing percentages with increasing slopes.

Pasture land increased between the gentle and the moderate slopes and was constant on the moderate and steeper slopes.

Forest land increased in percentage as slope increased. It was 57.6 percent of the gentle slopes, 64.4 percent of the moderate slopes and 80.2 percent of the steeper slopes. Other lands consistently occupied about 3.5 percent of each of the slope groups.

Table 14 breaks down SMG 3a-a in a similar manner. Cropland and it's component uses decreased with increasing slope as was the case on the 2.5a soils. The actual percentage of these acid soils used for cropland was significantly less than that of the somewhat finer textured 2.5a soils. The 3a-a soils had no more than 7.2 percent of a slope group in cropland, while the 2.5a soils had as much as 36.3 percent in cropland uses.

Pasture land was slightly more important as a use on the moderate and steeper slopes than on the gentle slopes. It occupied about 3 percent of the moderate and steeper

Table 13.--Land uses and percentage of slope classes in SMG 2.5a in LRA 93.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	4,514	2.7	2,138	2.0	0	0	6,652	2.4
Small Grains	28,459	16.7	13,194	13.8	475	4.0	42,128	15.2
Sod Crops	19,112	11.2	6,177	6.5	475	4.0	25,764	9.3
Idle	9,702	5.7	3,564	3.7	238	2.0	13,504	4.9
Fruit	0	0	0	0	0	0	0	0
All Cropland	61,787	36.3	25,073	26.2	1,188	10.0	88,048	31.7
Pasture	4,724	2.8	5,591	5.9	713	6.0	11,028	4.0
Forest	98,150	57.6	61,523	64.4	9,503	80.2	169,176	60.9
Other	5,684	3.3	3,330	3.5	445	3.8	9,459	3.4
TOTAL:	170,345	100.0	95,517	99.8	11,849	100.0	277,711	100.1

Table 14.--Land uses and percentage of slope classes in SMG 3a-a in LRA 93.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	2,067	0.4	0	0.0	0	0.0	2,067	0.2
Small Grains	17,751	3.1	2,119	0.4	0	0.0	19,870	1.7
Sod Crops	11,218	2.0	4,111	0.7	224	0.7	15,553	1.3
Idle	9,828	1.7	7,254	1.2	221	0.7	17,303	1.5
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	40,864	7.2	13,484	2.3	445	1.3	54,793	4.6
Pasture	7,989	1.4	17,252	2.9	1,096	3.2	26,337	2.2
Forest	507,871	89.0	549,545	93.0	32,287	94.9	1,089,703	91.1
Other	13,779	2.4	10,780	1.8	208	0.6	24,767	2.1
TOTAL:	570,503	100.0	591,061	100.0	34,036	100.1	1,195,600	100.1

slopes and only about 1.5 percent of the gentle slopes.

Forest land increased in percentage as slope increased from 89.0 percent of the gentle slopes to 93.0 percent of the moderate slopes and 94.5 percent of the steeper slopes.

Soils in the 4a and 4a-a SMG's each accounted for nearly 5 percent of the total LRA, Table 15 and Table 16. There was a greater percentage of the 4a soils devoted to most of the cropland uses than the 4a-a soils. Forest and other uses were as a result, in greater percentages on the 4a-a soils. The 4a-a soils were used very similarily to the 3a-a soils (Table 14). There were 221 acres of small grains and 475 acres of idle cropland on eroded gentle slopes in SMG 4a that do not appear in Table 15.

Table 17 and Table 18 illustrate the use-slope relationships for SMG's 5a and 5.3a, respectively. Greater percentages of SMG 5a were used for cropland than were SMG 5.3a, but no cropland uses exceeded 4 percent of a given slope group. Forest land accounted for 89 percent or more on each slope group in both of the SMG's and increased in percentage with increasing slope.

The deep organic soils (SMG Mc), Table 19, had an even lesser percentage of non-forested uses. Cropland, pasture and other uses were insignificant, accounting for only 2.3 percent of the total lands in SMG Mc.

Table 15.--Land uses and percentage of slope classes in SMG 4a in LRA 93.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	2,301	2.0	713	0.7	0	0.0	3,014	1.3
Small Grains	4,856	4.3	2,652	2.7	221	1.0	7,950	3.4
Sod Crops	4,653	4.1	1,525	1.5	0	0.0	6,178	2.6
Idle	3,022	2.7	3,126	3.1	442	2.0	7,065	3.0
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	14,832	13.0	8,016	8.0	663	3.1	24,207	10.3
Pasture	3,226	2.8	1,784	1.8	442	2.0	5,452	2.3
Forest	93,412	82.1	89,218	89.3	19,880	91.8	202,510	85.8
Other	2,283	2.0	900	0.9	680	3.1	3,863	1.6
TOTAL:	113,753	99.9	99,918	100.0	21,665	100.0	236,032	100.0

Table 16.--Land uses and percentage of slope classes in SMG 4a-a in LRA 93.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	2,892	2.0	831	1.0	0	0.0	3,723	1.5
Small Grains	5,215	3.6	2,285	2.8	208	1.3	7,708	3.2
Sod Crops	1,520	1.1	442	0.5	461	3.0	2,423	1.0
Idle	668	0.5	1,326	1.6	0	0.0	1,994	0.8
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	10,295	7.2	4,884	5.9	669	4.3	15,848	6.5
Pasture	1,869	1.3	416	0.5	415	2.7	2,700	1.1
Forest	127,021	88.5	76,807	92.5	14,390	93.0	218,218	90.2
Other	4,354	3.0	885	1.1	0	0.0	5,239	2.2
TOTAL:	143,539	100.0	82,992	100.0	15,474	100.0	242,005	100.0

Table 17.--Land uses and percentage of slope classes in SMG 5a in LRA 93.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	3,309	2.3	1,914	1.1	0	0.0	5,223	1.6
Small Grains	1,509	1.1	683	0.4	0	0.0	2,192	0.7
Sod Crops	4,859	3.4	3,346	2.0	0	0.0	8,205	2.5
Idle	1,715	1.2	874	0.5	459	3.3	3,048	0.9
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	11,392	8.0	6,817	4.1	459	3.3	18,668	5.8
Pasture	623	0.4	1,882	1.1	0	0.0	2,505	0.8
Forest	128,201	89.7	155.824	92.8	13,553	96.7	297,578	91.6
Other	2,781	2.0	3,396	2.0	0	0.0	6,177	1.9
TOTAL:	142,997	100.1	167,919	99.9	14,012	100.0	324,928	100.0

Table 18.--Land uses and percentage of slope classes in SMG 5.3a in LRA 93.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	2,128	3.6	1,916	0.9	0	0.0	4,044	1.4
Small Grains	422	0.7	238	0.1	0	0.0	660	0.2
Sod Crops	238	0.4	0	0.0	0	0.0	238	0.1
Idle	221	0.4	884	0.4	0	0.0	1,105	0.4
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	3,009	5.1	3,038	1.3	0	0.0	6,047	2.1
Pasture	208	0.4	210	0.1	0	0.0	418	0.2
Forest	52,446	89.2	222,683	98.4	1,089	100.0	276,218	96.5
Other	3,122	5.3	442	0.2	0	0.0	3,564	1.3
TOTAL:	58,785	100.0	226,373	100.1	1,089	100.0	286,247	100.1

Table 19.--Land uses and percentage of slope classes in SMG Mo in LRA 93.

Slope Classes	A+B		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0
Small Grains	238	tr.	0	0.0	238	tr.
Sod Crops	1,613	0.3	0	0.0	1,613	0.3
Idle	0	0.0	0	0.0	0	0.0
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	1,851	0.3	0	0.0	1,851	0.3
Pasture	2,957	0.5	0	0.0	2,957	0.5
Forest	554,541	97.7	428	100.0	554,969	97.7
Other	8,300	1.5	0	0.0	8,300	1.5
TOTAL:	567,649	100.0	428	100.0	568,077	100.0

tr. = trace-less than 0.1

Potential Future Uses

About 90 percent of LRA 93 was forested in 1967 even though 15 percent of the area was potentially prime farmland and 61 percent was potentially good farmland. Thus three-quarters of the LRA was potentially good farmland or better. Table 20 and Table 21 show how the potentially prime and potentially good farmland, respectively, was used. Note that only 16.3 percent of the potentially prime and only 5.3 percent of the potentially good farmlands were actually used for cropland uses. The potentially prime farmland in this area was more intensively used than that in LRA 92 (6.1 percent from Table 10), but was still significantly under utilized relative to agricultural uses. Potentially good farmland was similarly under used. As local and global demand for agricultural products increases large areas of land in LRA 93 could be shifted from forest uses to agricultural production.

Table 20.--Use of potentially prime farmland in LRA 93.

Use	Acreage	Percent
Row Crops	5,909	0.8
Small Grains	47,154	6.3
Sod Crops	50,215	6.7
Idle	19,014	2.5
Fruit	210	tr.
All Cropland	122,502	16.3
Pasture	17,870	2.4
Forest	600,288	79.7
Other	12,146	1.6
TOTAL:	752,806	100.0

tr. = trace - less than 0.1

Table 21.--Use of potentially good farmland in LRA 93.

Use	Acreage	Percent
Row Crops	11,833	0.4
Small Grains	64,416	2.1
Sod Crops	50,635	1.6
Idle	38,633	1.2
Fruit	0	0.0
All Cropland	165,517	5.3
Pasture	54,113	1.7
Forest	2,827,274	91.2
Other	52,716	1.7
TOTAL:	3,099,620	99.9

LRA 94N

LRA 94N, the northern portion of the Northern Michigan Sandy Drift, is located in the eastern third of the Upper Peninsula (Figure 1). The total inventory acreage was 2,783,869 acres. This was 9.0 percent of the state's inventory acreage.

This LRA is characterized by broad flat sandy plains and large areas of organic soils. More than 90 percent of this LRA was forested in 1967.

Soils

Table 22 lists the acreage of each of the SMG's that occurred in the LRA and its percentage of the LRA. Fine textured soils (SMG's 0a, 0b, 0c, 1a, 1b, 1c, 1.5a and 1.5b) accounted for 8.1 percent (225,469 acres) of the LRA. Medium textured soils (SMG's beginning with a 2 or a 3) occupied 9.4 percent (261,514 acres) of the LRA, coarse textured soils (SMG's beginning with a 4 or a 5) occupied 49.4 percent (1,375,552 acres), and organic soils occupied 24.5 percent (680,985 acres). The remaining 8.6 percent (240,350 acres) was occupied by alluvial, gravelly or rocky soils and non-soil material.

Well drained soils occurred on 46.2 percent (1,286,553 acres) of the LRA. Somewhat poorly drained soils occupied 13.0 percent (362,644 acres), the poorly and very poorly

Table 22.--SMG's, their acreage, and percentage of LRA 94N.

SMG	Acreage	Percent	SMG	Acreage	Percent
0a	42,280	1.5	4/2a	8,532	0.3
0b	100,387	3.6	4/2b	1,115	tr.
0c	8,594	0.3	4/2c	9,115	0.3
1a	2,026	0.1	4/Ra	1,978	0.1
1b	2,010	0.1	5a	589,809	21.2
1c	60,569	2.2	5a-h	123,647	4.4
1.5a	6,843	0.2	5b	145,626	5.2
1.5b	2,760	0.1	5b-h	38,013	1.4
2.5a	11,228	0.4	5c	38,081	1.4
2.5a-s	19,792	0.7	5c-a	105,705	3.8
2.5b	3,780	0.1	5/2a	210	tr.
2.5b-s	32,362	1.2	5/2b	2,781	0.1
2.5c	4,835	0.2	5.3a	150,694	5.4
2.5c-c	630	tr.	L-2c	4,555	0.2
2.5c-s	17,802	0.6	L-4a	1,340	tr.
3a	59,486	2.1	L-4c	25,563	1.0
3a-a	27,578	1.0	L-Mc	20,955	0.8
3b-a	7,738	0.3	Mc	321,920	11.6
3c	671	tr.	Mc-a	174,804	6.3
3/1a	1,854	0.1	M/1c	1,126	tr.
3/1b	4,866	0.2	M/1c-a	13,516	0.5
3/1c	35,182	1.3	M/3c	10,654	0.4
3/Ra	33,710	1.2	M/4c	158,270	5.7
4a	123,745	4.4	M/mc	695	tr.
4b	12,745	0.5	Ga	21,211	0.8
4c	8,343	0.3	Gbc	59,759	2.1
4/1a	2,549	0.1	Ra	58,041	2.1
4/1b	8,461	0.3	Rbc	16,522	0.6
4/1c	4,402	0.2	Misc.	32,404	1.2
			TOTAL:	2,783,893	100.2

tr. = trace - less than 0.1

drained soils occupied 39.6 percent (1,102,268 acres), and non-soil material occupied the remaining 1.2 percent (32,404 acres).

Slopes were fairly flat with 78.2 percent of the LRA having less than 6 percent slopes. Slopes from 6 to 18 percent accounted for 17.1 percent of the LRA and the other 4.7 percent of the LRA had slopes in excess of 18 percent.

Potentially prime farmland accounted for 8.0 percent of the LRA. Potentially good farmland accounted for an additional 40.0 percent. No unique farmland occurred in this LRA.

Land Use

The dominant land use in LRA 94N was forestry, Table 1. It occurred on 91.3 percent of the land. Cropland and pasture accounted for 6.5 percent and 0.8 percent, respectively. The remaining 1.3 percent was other uses.

Soils and Land Use

Appendix C lists the acreage of each of the major land uses in each of the SMU's in LRA 94N. Six SMG's contained at least 5 percent each of the LRA. These were 5a, 5b, 5.3a, Mc, Mc-a and M/4c. Also discussed are SMG's 0a, 0b, 1c, 3a and 4a. These are either compared with similar SMG's in LRA 92 or used to illustrate land use changes in a topo- or a lithosequence.

Tables 23, 24 and 25 break down SMG's 0a, 0b and 1c, respectively, by slope classes and land uses. These soils form an approximate toposequence with the 1c soils being slightly coarser.

Note that on the same slopes (A and B) the percentage of cropland is 55 to 58 percent of the 0a and 0b soils, and drops to 42 percent of the 1c soils. Small grains were most common on the somewhat poorly drained soils (41 percent) and were equally common on the well drained and poorly drained soils (28 percent). Idle cropland was least common on the somewhat poorly drained soils (10 percent) and more common on the well drained and poorly drained soils (13 and 15 percent).

Sod crops and pasture decreased with increasing soil wetness and forests increased with increasing wetness.

SMG's 0a and 0b were discussed in LRA 92. Note the much more intensive use of these same SMG's in LRA 94N than in LRA 92. Over half of the gentle slopes on the 0a soils in LRA 94N were cropland where the comparable soils in LRA 92 were only 19 percent cropland (Table 5). The difference was even more pronounced on the 0b soils. Fifty-eight percent of the 0b soils in LRA 94N were used for cropland, whereas cropland accounted for only 7.9 percent of the 0b soils in LRA 92 (Table 6).

Tables 26, 27, 28 and 29 break down SMG's 3a, 4a, 5a and 5.3a, respectively, a partial lithosequence, by slope classes

Table 23.--Land uses and percentage of slope classes in SMG 0a in LRA 94N.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	7,347	27.8	464	5.2	232	3.3	8,043	19.0
Sod Crops	3,408	12.9	927	10.4	0	0.0	4,335	10.3
Idle	3,897	14.7	0	0.0	0	0.0	3,897	9.2
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	14,652	55.4	1,391	15.7	232	3.3	16,275	38.5
Pasture	4,634	17.5	232	2.6	1,390	20.0	6,256	14.8
Forest	6,248	23.6	6,567	74.0	4,866	70.0	17,681	41.8
Other	919	3.5	686	7.7	464	6.7	2,069	4.9
TOTAL:	26,453	100.0	8,876	100.0	6,952	100.0	42,281	100.0

Table 24.--Land uses and percentage of SMG 0b in LRA 94N.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	40,773	40.6
Sod Crops	7,393	7.4
Idle	10,195	10.2
Fruit	0	0.0
All Cropland	58,361	58.1
Pasture	4,402	4.4
Forest	34,380	34.2
Other	3,244	3.2
TOTAL:	100,387	99.9

Table 25.--Land uses and percentage of SMG 1c in LRA 94N.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	16,780	27.7
Sod Crops	1,090	1.8
Idle	7,630	12.6
Fruit	0	0.0
All Cropland	25,500	42.1
Pasture	232	0.4
Forest	32,058	52.9
Other	2,781	4.6
TOTAL:	60,571	100.0

Table 26.--Land uses and percentage of slope classes in SMG 3a in LRA 94N.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0	0	0.0
Sod Crops	210	0.6	0	0.0	0	0.0	210	0.4
Idle	1,116	3.0	0	0.0	0	0.0	1,116	1.9
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	1,326	3.6	0	0.0	0	0.0	1,326	2.2
Pasture	447	1.2	0	0.0	0	0.0	447	0.7
Forest	35,246	94.6	17,146	91.4	3,476	100.0	55,868	93.9
Other	223	0.6	1,622	8.6	0	0.0	1,845	3.1
TOTAL:	37,242	100.0	18,768	100.0	3,476	100.0	59,486	99.9

Table 27.--Land uses and percentage of slope classes in SMG 4a in LRA 94N.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	449	0.7	0	0.0	0	0.0	0	0.0
Sod Crops	13,230	21.8	901	1.9	0	0.0	14,768	12.7
Idle	5,671	9.3	649	1.4	0	0.0	6,545	5.6
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	19,350	31.9	1,550	3.3	0	0.0	21,762	18.7
Pasture	212	0.3	0	0.0	0	0.0	424	0.4
Forest	39,858	65.6	44,736	96.2	7,046	100.0	92,527	79.4
Other	1,306	2.2	224	0.5	0	0.0	1,755	1.5
TOTAL:	60,726	100.0	46,510	100.0	7,046	100.0	116,468	100.0

Slope Classes	C+D eroded		E+	
Use	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0
Sod Crops	637	36.7	0	0.0
Idle	225	13.0	0	0.0
Fruit	0	0.0	0	0.0
All Cropland	862	49.7	0	0.0
Pasture	212	12.2	0	0.0
Forest	662	38.1	225	50.0
Other	0	0.0	225	50.0
TOTAL:	1,736	100.0	450	100.0

Table 28.--Land uses and percentage of slope classes in SMG 5a in LRA 94N.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0	0	0.0
Sod Crops	4,075	1.3	0	0.0	0	0.0	4,075	0.7
Idle	2,613	0.8	863	0.4	0	0.0	3,476	0.6
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	6,688	2.1	863	0.4	0	0.0	7,551	1.3
Pasture	438	0.1	1,351	0.6	0	0.0	1,789	0.3
Forest	305,222	96.9	217,627	98.2	50,609	100.0	575,912	97.6
Other	2,705	0.9	1,854	0.8	0	0.0	4,559	0.8
TOTAL:	315,053	100.0	221,695	100.0	50,609	100.0	589,811	100.0

Table 29.--Land uses and percentage of slope classes in SMG 5.3a in LRA 94N.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0	0	0.0
Sod Crops	420	0.7	0	0.0	0	0.0	420	0.3
Idle	223	0.4	210	0.3	0	0.0	433	0.3
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	643	1.1	210	0.3	0	0.0	853	0.6
Pasture	0	0.0	0	0.0	0	0.0	0	0.0
Forest	58,783	97.8	63,487	99.7	26,876	100.0	149,146	99.0
Other	695	1.2	0	0.0	0	0.0	695	0.5
TOTAL	60,121	100.1	63,697	100.0	26,876	100.0	150,694	100.1

and land uses. With the exception of SMG 4a, as the soil profile became coarser, the percentage of cropland decreased and the percentage of forest land increased. On the coarsest soils (SMG's 5a and 5.3a) forests made up no less than 96.9 percent of any slope group. Forest land tended to increase in percentage as slope increased within each of these SMG's.

SMG 4a was used more intensively than the 3a soils or the coarser 5a and 5.3a soils. Cropland accounted for 18.7 percent of SMG 4a. Sod crops and idle cropland accounted for almost all of that (18.3 percent).

Table 30 presents the land use of SMG 5b. Note that 99.2 percent was forested. Comparing this with the well drained, similarily textured 5a soils (Table 28), a higher percentage of the wetter 5b soils were forested (99.2 percent versus 96.9 percent on similar slopes in 5a soils).

The organic soils in LRA 94N were also almost exclusively forested. Tables 31, 32 and 33 show land uses for SMG Mc, Mc-a and M/4c, respectively. Over 99 percent of each of these three groups were forested, with no significant difference between the way they were used.

Potential Future Uses

Over 90 percent of LRA 94N was forested even though 8 percent was potentially prime farmland and 40 percent was potentially good farmland. Thus about half of the land in LRA 94N was potentially good farmland or better.

Table 30.--Land uses and percentage of SMG 5b in LRA 94N.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	0	0.0
Sod Crops	457	0.3
Idle	0	0.0
Fruit	0	0.0
All Cropland	457	0.3
Pasture	0	0.0
Forest	144,487	99.2
Other	682	0.5
TOTAL:	145,626	100.0

Table 31.--Land uses and percentage of slope classes in SMG Mc in LRA 94N.

Slope Classes	A+B		C+D		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0
Sod Crops	0	0.0	0	0.0	0	0.0
Idle	0	0.0	0	0.0	0	0.0
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	0	0.0	0	0.0	0	0.0
Pasture	0	0.0	0	0.0	0	0.0
Forest	319,001	99.2	447	100.0	319,448	99.2
Other	2,471	0.8	0	0.0	2,471	0.8
TOTAL:	321,472	100.0	447	100.0	321,919	100.0

Table 32.--Land uses and percentage of SMG Mc-a in LRA 94N.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	0	0.0
Sod Crops	0	0.0
Idle	0	0.0
Fruit	0	0.0
All Cropland	0	0.0
Pasture	0	0.0
Forest	173,918	99.5
Other	886	0.5
TOTAL:	174,804	100.0

Table 33.--Land uses and percentage of SMG M/4c in LRA 94N.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	0	0.0
Sod Crops	0	0.0
Idle	450	0.3
Fruit	0	0.0
All Cropland	450	0.3
Pasture	0	0.0
Forest	157,384	99.4
Other	436	0.3
TOTAL:	158,270	100.0

Tables 34 and 35 indicate the use of the potentially prime and potentially good farmland, respectively. Note that 18.8 percent of the potentially prime and only 10.5 percent of the potentially good farmlands were actually used as cropland. This indicates an under utilization relative to agricultural production. As local and global demands for food and forage products increase, a large acreage in LRA 94N could be shifted from forest uses to agricultural production.

Table 34.--Use of potentially prime farmland in LRA 94N.

Use	Acreage	Percent
Row Crops	0	0.0
Small Grains	17,925	8.1
Sod Crops	12,006	5.4
Idle	11,824	5.3
Fruit	0	0.0
All Cropland	41,755	18.8
Pasture	2,581	1.2
Forest	173,584	78.0
Other	4,604	2.1
TOTAL:	222,534	100.1

Table 35.--Use of potentially good farmland in LRA 94N.

Use	Acreage	Percent
Row Crops	224	tr.
Small Grains	52,847	4.8
Sod Crops	29,719	2.7
Idle	33,533	3.0
Fruit	0	0.0
All Cropland	116,323	10.5
Pasture	13,180	1.2
Forest	966,400	86.9
Other	16,448	1.5
TOTAL:	1,112,351	100.1

tr. = trace - less than 0.1

LRA 94S

LRA 94S, the southern portion of the Northern Michigan Sandy Drift, occupies the eastern two thirds of the northern half of the Lower Peninsula. The total inventory acreage was 7,551,075 acres, or 24.3 percent of the state inventory.

This LRA is charcterized by broad, flat, sandy plains and large area of organic soils. Forestry was the dominant land use in 1967 accounting for over 70 percent of the LRA's land use.

Soils

Each of the SMG's that occurred in LRA 94S and its percentage of the LRA are listed in Table 36. Fine textured soils (SMG 0a, 0b, 0c, 1a, 1b, 1c, 1.5a, 1.5b and 1.5c) accounted for 9.6 percent (728,344 acres), medium textured soils (SMG's beginning with a 2 or a 3) accounted for 10.9 percent (826,730 acres), and coarse textured soils accounted for 67.0 percent (5,060,791 acres) of the LRA. Organic soils occurred on 8.7 percent (658,920 acres) of the LRA and alluvial, gravelly and rocky soils occurred on 2.8 percent (212,271 acres). The remaining 0.8 percent (64,019 acres) was non-soil material and unidentified acreage.

Well drained soils occurred on 70.2 percent (5,301,733 acres) of the LRA. Somewhat poorly drained soils occupied

Table 36.--SMG's, their acreage, and percentage of LRA 94S.

SMG	Acreage	Percent	SMG	Acreage	Percent
0a	432	tr.	4c	65,432	0.9
0b	4,448	0.1	4/1a	8,176	0.1
0c	26,739	0.4	4/1b	17,231	0.2
1a	74,274	1.0	4/1c	8,238	0.1
1b	89,680	1.2	4/2a	133,084	1.8
1c	9,248	0.1	4/2b	143,246	1.9
1.5a	359,400	4.8	4/2b-s	4,540	0.1
1.5b	110,673	1.5	4/2c	40,468	0.5
1.5c	53,450	0.7	4/Ra	209	tr.
2.5a	188,779	2.5	5a	1,372,177	18.2
2.5a-s	10,327	0.1	5a-h	3,131	tr.
2.5b	26,378	0.3	5a-m	6,325	0.1
2.5b-s	20,068	0.3	5b	143,636	1.9
2.5b-cs	216	tr.	5b-h	94,050	1.2
2.5c	54,387	0.7	5c	232,532	3.1
2.5c-c	3,044	tr.	5c-a	75,611	1.0
2.5c-s	9,178	0.1	5/2a	81,674	1.1
3a	351,827	4.7	5/2b	44,409	0.6
3a-a	216	tr.	5.3a	1,158,602	15.3
3b	10,095	0.1	5.7a	520,107	6.9
3b-s	5,057	0.1	L-2c	68,500	0.9
3c	5,626	0.1	L-4a	862	tr.
3c-s	7,441	0.1	L-4c	8,794	0.1
3/1a	1,899	tr.	L-Mc	43,524	0.6
3/1b	1,579	tr.	Mc	410,934	5.4
3/1c	33,003	0.4	Mc-a	76,576	1.0
3/2a	24,884	0.3	M/1c	8,419	0.1
3/2b	11,675	0.2	M/3c	42,716	0.6
3/2c	5,008	0.1	M/4c	117,827	1.6
3/5a	35,959	0.5	M/mc	2,448	0.1
3/5a-a	1,699	tr.	Ga	34,963	0.5
3/5b	3,889	0.1	Gbc	400	tr.
3/Ra	14,496	0.2	Ra	42,706	0.6
4a	863,733	11.4	Rbc	12,522	0.2
4a-a	11,792	0.2	Misc.	64,019	0.8
4b	32,388	0.4	TOTAL:	7,551,075	100.2

tr. = trace - less than 0.1

10.1 percent (763,258 acres), poorly and very poorly drained soils occupied 18.8 percent (1,422,065 acres), and the miscellaneous lands occupied the remaining 0.8 percent (64,019 acres) of the LRA.

Slopes were mostly gentle with 70.2 percent (5,305,647 acres) of the LRA occurring on the gentle slopes (up to 6 percent). Moderately sloping land (6 to 12 percent slopes) occupied 22.8 percent (1,719,695 acres) of the LRA and the remaining 7.0 percent (525,732 acres) was occupied by steeply sloping lands.

Potentially prime farmland accounted for 14.8 percent (1,116,191 acres) of the LRA. Potentially good farmland occupied an additional 35.3 percent (2,668,372 acres). No unique farmland occurred in this LRA.

Land Use

The dominant land use in LRA 94S was forestry, Table 1. It occurred on 71.3 percent of the land. Row crops accounted for 2.7 percent, small grains 2.8 percent, sod crops 8.4 percent, idle 5.6 percent, and fruit crops accounted for 0.3 percent of the LRA. Cropland and pasture accounted for 19.8 and 5.7 percent, respectively. The remaining 3.2 percent was other uses.

Soils and Land Use

Appendix D lists the acreage of each of the major land uses in each of the SMU's in LRA 94S. Five SMG's each made

up at least 5 percent of the LRA. These are 4a, 5a, 5.3a, 5.7a and Mc. Additionally, SMG's 1a, 1b, 1.5a, 1.5c, 2.5a, 3a, 4/2a, 4/2b, 5b, and 5c are discussed.

Table 37 and Table 38 break down SMG 1a and 1b, respectively, a toposequence. On similar slopes, row crops were in about the same percentage in both SMG's. Small grains and idle cropland were both significantly more abundant on the well drained soils. Sod crops and forests were more abundant on the somewhat poorly drained soils. In SMG 1a, there were 198 acres of small grains on eroded C and D slopes not presented in table 37.

Table 39 and Table 40 present land uses on a slightly coarser toposequence, 1.5a and 1.5b, respectively. On similar slopes there was very little difference in the way the two groups were used. In the 1.5a soils as slope increased cropland uses tended to decrease, except on the eroded slopes.

Table 37, Table 39, Table 41, Table 42, Table 43, Table 46, Table 49 and Table 50 present a lithosequence for SMG's 1a, 1.5a, 2.5a, 3a, 4a, 5a, 5.3a and 5.7a respectively. This sequence covers all but the finest textured well drained soils. As a general rule, as texture got coarser cropland and its component uses declined. Forests increased in percentage as texture got coarser, starting at 21.7 percent of the 1a soils and accounting for 95.7 percent of the sandiest 5.7a soils. Generally, increasing slope had the same effect as increasing sand content. As slopes increased forests

Table 37.--Land uses and percentage of slope classes in SMG 1a in LRA 94S.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	5,584	8.4	0	0.0	0	0.0	5,584	7.5
Small Grains	20,027	30.1	1,246	21.0	0	0.0	21,471	28.9
Sod Crops	11,606	17.5	628	10.6	0	0.0	12,234	16.5
Idle	5,740	8.6	213	3.6	0	0.0	5,953	8.0
Fruit	837	1.3	0	0.0	0	0.0	837	1.1
All Cropland	43,794	65.9	2,087	35.4	0	0.0	46,079	62.0
Pasture	8,954	13.5	827	14.0	216	12.6	9,997	13.5
Forest	11,815	17.8	2,988	50.6	1,295	75.5	16,098	21.7
Other	1,898	2.9	0	0.0	204	11.9	2,102	2.8
TOTAL:	66,461	100.1	5,902	100.0	1,715	100.0	74,274	100.0

Table 38.--Land uses and percentage of slope classes in SMG 1b in LRA 94S.

Slope Classes	A+B		C+D		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	6,449	7.3	0	0.0	6,449	7.2
Small Grains	10,767	12.1	0	0.0	10,767	12.0
Sod Crops	18,289	20.6	0	0.0	18,289	20.4
Idle	2,740	3.1	0	0.0	2,740	3.1
Fruit	197	0.2	0	0.0	197	0.2
All Cropland	38,442	43.3	0	0.0	38,442	42.9
Pasture	8,875	10.0	0	0.0	8,875	9.9
Forest	39,841	44.9	856	100.0	40,697	45.4
Other	1,665	1.9	0	0.0	1,665	1.9
TOTAL:	88,823	100.1	856	100.0	89,680	100.1

Table 39.--Land uses and percentage of slope classes in SMG 1.5a in LRA 94S.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	24,830	12.3	6,325	5.2	0	0.0	33,010	9.2
Small Grains	26,848	13.3	7,582	6.2	408	2.5	36,914	10.3
Sod Crops	56,923	28.1	35,571	29.2	1,271	7.8	96,289	26.8
Idle	17,367	8.6	12,309	10.1	416	2.6	31,951	8.9
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	125,968	62.2	61,787	50.6	2,095	12.9	198,164	55.1
Pasture	28,630	14.1	23,771	19.5	3,782	23.3	62,025	17.3
Forest	40,171	19.8	32,209	26.4	9,947	61.2	85,881	23.9
Other	7,832	3.9	4,244	3.5	419	2.6	13,332	3.7
TOTAL:	202,601	100.0	122,011	100.0	16,243	100.0	359,400	100.0

Slope Classes	C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%
Row Crops	1,214	13.0	641	7.0
Small Grains	1,433	15.3	643	7.0
Sod Crops	1,879	20.1	645	7.0
Idle	1,659	17.7	200	2.2
Fruit	0	0.0	0	0.0
All Cropland	6,185	66.1	2,129	23.1
Pasture	1,673	17.9	4,169	45.3
Forest	855	9.1	2,699	29.3
Other	637	6.8	200	2.2
TOTAL:	9,350	99.9	9,197	99.9

Table 40.--Land uses and percentage of slope classes in SMG 1.5b in LRA 94S.

Slope Classes	A+B		C+D		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	14,362	13.1	0	0.0	14,362	13.0
Small Grains	12,857	11.7	212	33.4	13,049	11.8
Sod Crops	30,199	27.4	0	0.0	30,199	27.3
Idle	10,114	9.2	0	0.0	10,114	9.1
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	67,512	61.4	212	33.4	67,724	61.2
Pasture	21,907	11.7	423	66.6	13,330	12.0
Forest	27,908	25.4	0	0.0	27,908	25.2
Other	1,711	1.6	0	0.0	1,711	1.5
TOTAL:	110,038	100.1	635	100.0	110,673	99.9

Table 41.--Land uses and percentage of slope classes in SMG 2.5a in LRA 94S.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	1,687	1.4	0	0.0	0	0.0	1,687	0.9
Small Grains	10,542	9.0	1,894	3.2	212	1.9	12,648	6.7
Sod Crops	35,060	29.8	10,954	18.3	213	1.9	46,227	24.5
Idle	8,343	7.1	3,695	6.2	0	0.0	12,038	6.4
Fruit	2,469	2.1	418	0.7	0	0.0	2,887	1.5
All Cropland	58,101	49.3	16,961	28.3	425	3.9	75,487	40.0
Pasture	17,047	14.5	6,669	11.1	1,040	9.5	24,756	13.1
Forest	40,059	34.0	35,044	58.5	9,460	86.6	84,563	44.8
Other	2,518	2.1	1,244	2.1	0	0.0	3,975	2.1
TOTAL:	117,725	99.9	59,918	100.0	10,925	100.0	188,779	100.0

Table 42.--Land uses and percentage of slope classes in SMG 3a in LRA 94S.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	14,466	9.6	6,706	4.0	207	0.8	21,586	6.1
Small Grains	10,289	6.8	3,714	2.2	216	0.9	14,219	4.0
Sod Crops	26,267	17.4	21,982	13.0	2,747	11.0	52,695	15.0
Idle	12,362	8.2	9,557	5.7	829	3.3	23,595	6.7
Fruit	2,637	1.7	4,180	2.5	0	0.0	6,817	1.9
All Cropland	66,021	43.7	46,139	27.3	3,999	16.0	118,912	33.8
Pasture	9,166	6.1	9,770	5.8	1,242	5.0	23,080	6.6
Forest	71,873	47.6	109,977	65.1	19,138	76.5	202,039	57.4
Other	3,885	2.6	3,069	1.8	633	2.5	7,799	2.2
TOTAL:	150,945	100.0	168,955	100.0	25,012	100.0	351,827	100.0

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	207	4.5	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0
Sod Crops	209	16.7	1,490	32.1	0	0.0
Idle	635	50.7	212	4.6	0	0.0
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	844	67.4	1,909	41.1	0	0.0
Pasture	200	16.0	1,891	40.7	811	79.3
Forest	209	16.7	630	13.6	212	20.7
Other	0	0.0	212	4.6	0	0.0
TOTAL:	1,253	100.1	4,642	100.0	1,023	100.0

Table 43.--Land uses and percentage of slope classes in SMG 4a in LRA 94S.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	20,673	4.9	6,215	2.1	212	0.2	28,148	3.3
Small Grains	26,096	6.2	10,569	3.5	218	0.2	39,257	4.5
Sod Crops	65,474	15.6	42,417	14.1	4,613	4.1	117,956	13.7
Idle	44,768	10.7	24,849	8.3	4,388	3.9	76,081	8.8
Fruit	2,449	0.6	1,431	0.5	0	0.0	3,880	0.4
All Cropland	159,460	38.0	85,481	28.4	9,431	8.3	265,322	30.7
Pasture	24,860	5.9	22,091	7.3	6,945	6.1	62,064	7.2
Forest	214,586	51.2	184,421	61.3	91,534	80.8	501,538	58.1
Other	20,319	4.8	8,957	3.0	5,326	4.7	34,809	4.0
TOTAL:	419,225	99.9	300,950	100.0	113,236	99.9	863,733	100.0

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	1,048	4.5	0	0.0
Small Grains	0	0.0	1,940	8.4	434	6.1
Sod Crops	0	0.0	3,955	17.2	1,497	21.2
Idle	0	0.0	2,076	9.0	0	0.0
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	0	0.0	9,019	39.1	1,931	27.3
Pasture	0	0.0	7,952	34.5	216	3.1
Forest	199	100.0	5,876	25.5	4,922	69.6
Other	0	0.0	207	0.9	0	0.0
TOTAL:	199	100.0	23,054	100.0	7,069	100.0

Table 44.--Land uses and percentage of slope classes in SMG 4/2a in LRA 94S.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	3,442	4.6	1,451	2.9	0	0.0	4,893	3.7
Small Grains	2,540	3.4	1,271	2.5	0	0.0	3,811	2.9
Sod Crops	13,352	17.7	7,258	14.4	0	0.0	20,610	15.5
Idle	5,973	7.9	4,397	8.7	417	6.8	10,787	8.1
Fruit	414	0.5	0	0.0	0	0.0	414	0.3
All Cropland	25,721	34.1	14,377	28.5	417	6.8	40,515	30.4
Pasture	2,312	3.1	5,091	10.1	1,211	19.8	8,614	6.5
Forest	42,966	56.9	30,177	59.8	4,483	73.4	78,700	59.1
Other	4,449	5.9	804	1.6	0	0.0	5,253	3.9
TOTAL:	75,448	100.0	50,449	100.0	6,111	100.0	133,084	99.9

Table 45.--Land uses and percentage of slope classes in SMG 4/2b in LRA 94S.

Slope Classes	AB		AB eroded		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	5,940	4.2	0	0.0	5,940	0.0
Small Grains	7,317	5.1	0	0.0	7,317	5.1
Sod Crops	16,683	11.7	672	100.0	17,355	12.1
Idle	16,305	11.4	0	0.0	16,305	11.4
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	46,245	32.4	672	100.0	46,917	32.8
Pasture	14,360	10.1	0	0.0	14,360	10.0
Forest	78,003	54.7	0	0.0	78,003	54.5
Other	3,966	7.8	0	0.0	3,966	2.8
TOTAL:	142,574	100.0	672	100.0	143,246	100.1

Table 46.--Land uses and percentage of slope classes in SMG 5a in LRA 94S.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	23,287	3.1	5,036	1.3	207	0.1	29,354	2.1
Small Grains	5,206	0.7	2,960	0.6	0	0.0	9,016	0.7
Sod Crops	56,555	7.5	20,588	5.3	1,076	0.6	80,336	5.9
Idle	52,973	7.0	35,631	9.1	4,611	2.7	112,148	8.2
Fruit	855	0.1	663	0.2	0	0.0	2,329	0.2
All Cropland	138,876	18.3	64,878	16.6	5,894	3.4	233,183	17.0
Pasture	26,833	3.5	14,541	3.7	5,824	3.4	48,870	3.6
Forest	559,059	73.7	303,140	77.4	157,907	91.7	1,043,801	76.1
Other	33,853	4.5	9,074	2.3	2,525	1.5	46,323	3.4
TOTAL:	758,621	100.0	391,633	100.0	172,150	100.0	1,372,177	100.1

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	824	2.2	0	0.0
Small Grains	634	25.2	216	0.6	0	0.0
Sod Crops	0	0.0	1,486	4.0	631	6.1
Idle	1,254	49.9	16,397	44.5	1,282	12.3
Fruit	0	0.0	811	2.2	0	0.0
All Cropland	1,888	75.1	19,734	53.6	1,913	18.4
Pasture	204	8.1	1,261	3.4	207	2.0
Forest	422	16.8	14,984	40.7	8,289	79.6
Other	0	0.0	871	2.4	0	0.0
TOTAL:	2,514	100.0	36,850	100.1	10,409	100.0

Table 47.--Land uses and percentage of SMG 5b in LRA 94S.

Use	Acreage	Percent
Row Crops	1,840	1.3
Small Grains	1,010	0.7
Sod Crops	820	0.6
Idle	8,829	6.1
Fruit	1,388	1.0
All Cropland	13,887	9.7
Pasture	2,765	1.9
Forest	123,367	85.9
Other	3,617	2.5
TOTAL:	143,636	100.0

Table 48.--Land uses and percentage of SMG 5c in LRA 94S.

Use	Acreage	Percent
Row Crops	1,407	0.6
Small Grains	1,002	0.4
Sod Crops	4,260	1.8
Idle	2,678	1.2
Fruit	198	0.1
All Cropland	9,545	4.1
Pasture	9,695	4.2
Forest	210,671	90.6
Other	2,622	1.1
TOTAL:	232,532	100.0

Table 49.--Land uses and percentage of slope classes in SMG 5.3a in LRA 94S.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	834	0.1	630	0.2	0	0.0	1,464	0.1
Small Grains	2,076	0.3	207	0.1	0	0.0	2,283	0.2
Sod Crops	9,073	1.3	2,470	0.7	0	0.0	13,213	1.1
Idle	19,935	2.9	10,640	3.1	209	0.2	34,555	3.0
Fruit	414	0.1	208	0.1	0	0.0	1,820	0.2
All Cropland	32,332	4.7	14,155	4.1	209	0.2	53,335	4.6
Pasture	16,688	2.5	4,004	1.2	421	0.4	22,576	1.9
Forest	617,232	90.6	316,328	91.7	110,749	99.1	1,055,129	91.1
Other	14,861	2.2	10,623	3.1	408	0.4	27,562	2.4
TOTAL:	681,113	100.0	345,110	100.1	111,787	100.1	1,158,602	100.0

Slope Classes	AB eroded		C+D eroded		E+ eroded		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0		
Small Grains	0	0.0	0	0.0	0	0.0		
Sod Crops	1,058	33.6	612	4.2	0	0.0		
Idle	847	26.9	2,924	20.1	0	0.0		
Fruit	0	0.0	991	6.8	207	7.1		
All Cropland	1,905	60.6	4,527	31.2	207	7.1		
Pasture	0	0.0	1,245	8.6	218	7.4		
Forest	632	20.1	8,299	57.2	1,889	64.4		
Other	609	19.4	442	3.0	619	21.1		
TOTAL:	3,146	100.1	14,513	100.0	2,933	100.0		

Table 50.--Land uses and percentage of slope classes inSMG 5.7a in LRA 94S.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0	0	0.0
Small Grains	216	0.1	0	0.0	0	0.0	216	tr.
Sod Crops	635	0.2	0	0.0	0	0.0	635	0.1
Idle	4,457	1.1	1,063	1.1	0	0.0	5,732	1.1
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	5,308	1.3	1,063	1.1	0	0.0	6,583	1.3
Pasture	2,942	0.7	0	0.0	1,470	6.7	4,412	0.8
Forest	381,340	95.7	95,846	97.2	19,925	90.8	497,930	95.7
Other	8,897	2.2	1,736	1.8	552	2.5	11,185	2.2
TOTAL:	398,487	100.0	98,645	100.1	21,947	100.0	520,107	100.0

Slope Classes	C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0
Sod Crops	0	0.0	0	0.0
Idle	0	0.0	212	25.0
Fruit	0	0.0	0	0.0
All Cropland	0	0.0	212	25.0
Pasture	0	0.0	0	0.0
Forest	184	100.0	635	75.0
Other	0	0.0	0	0.0
TOTAL:	184	100.0	847	100.0

tr. = trace - less than 0.1

became increasingly common and cropland percentages declined. In SMG 2.5a there were 213 acres of other uses on eroded C and D slopes that were not included in Table 41.

Table 44 and Table 45 present land use for SMG 4/2a and 4/2b, respectively. Note that drainage does not significantly affect the land use in the well drained and somewhat poorly drained soils. There is slightly more sod crops and less idle cropland in the well drained 4/2a soils than the 4/2b soils. Otherwise they differ very little in land use on the same slopes.

A more complete drainage sequence is presented in Table 46 (5a), Table 47 (5b) and Table 48 (5c). In these sandy soils, on the same slopes, the well drained soils are the most intensively used. Cropland represented 18.3 percent of the gently sloped well drained soils, 9.7 percent of the somewhat poorly drained soils and only 4.1 percent of the poorly drained soils. These sandy soils were much less intensively used as the loamy and clayey soils. Forests represented at least three-quarters of the use of any of these soils, and a maximum of only 57 percent of any finer textured soils presented. In SMG 4/2a there were 426 acres in forest on eroded C and D slopes and 648 acres in forest on eroded E and higher slopes. Neither eroded figure was presented in Table 44.

The deep organic Mc soils (Table 51) were less intensively used than all but the coarsest textured mineral soils.

Table 51.--Land uses and percentage of slope classes in SMG Mc in LRA 94S.

Slope Classes	A+B		C+D		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	1,800	0.4	0	0.0	1,800	0.4
Small Grains	1,028	0.3	0	0.0	1,028	0.3
Sod Crops	2,664	0.6	0	0.0	2,664	0.6
Idle	3,910	1.0	0	0.0	3,910	1.0
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	9,402	2.3	0	0.0	9,402	2.3
Pasture	11,773	2.9	0	0.0	11,773	2.9
Forest	377,551	91.9	216	100.0	377,767	91.9
Other	11,993	2.9	0	0.0	11,993	2.9
TOTAL:	410,719	100.0	216	100.0	410,934	100.0

Total cropland represented only 2.3 percent, and forestry accounted for 91.9 percent of their use.

Potential Future Uses

Over 70 percent of LRA 94S was forested in 1967 even though 14.8 percent of the soils were potentially prime and 35.3 percent were potentially good farmland. Thus about half of the LRA was potentially good or potentially prime farmland, yet only 19.8 percent of the LRA was in cropland uses. Table 52 and Table 53 present the use of the potentially prime and potentially good farmland respectively. These soils were more intensively used than the other soils in the LRA, however they were under utilized relative to agricultural production. Less than half of the potentially prime and less than one-quarter of the potentially good farmland were in cropland uses. With an increasing need for food and fiber products these soils could be shifted from forest uses to cropland uses.

Table 52.--Use of potentially prime farmland in LRA 94S.

Use	Acreage	Percent
Row Crops	86,431	7.7
Small Grains	111,801	10.0
Sod Crops	235,020	21.1
Idle	79,908	7.2
Fruit	6,537	0.6
All Cropland	519,697	46.6
Pasture	120,479	10.8
Forest	447,869	40.1
Other	28,146	2.5
TOTAL:	1,116,191	100.0

Table 53.--Use of potentially good farmland in LRA 94S.

Use	Acreage	Percent
Row Crops	75,928	2.8
Small Grains	78,516	2.9
Sod Crops	266,812	10.0
Idle	164,696	6.2
Fruit	9,897	0.4
All Cropland	595,849	22.3
Pasture	178,621	6.7
Forest	1,812,735	67.9
Other	81,167	3.0
TOTAL:	2,668,372	99.9

LRA 96

Land Resource Area 96, the Western Michigan Fruit Belt adjoins the eastern edge of Lake Michigan from mid-state to slightly south of the Mackinaw Straits (Figure 1). The total inventory acreage was 1,364,660 acres. It contained 4.4 percent of the state's inventory acreage. The area is characterized by sandy hills and plains covered by orchards, farmland and forests. About half was forested and half was cropland in 1967. There were orchards on 6.6 percent of the area.

Soils

Table 54 lists the acreage of each of the Soil Management Groups that occurred in LRA 96 and its percentage of the LRA. Fine textured soils (SMG's 0c, 1a, 1b, 1c, 1.5a, 1.5b and 1.5c) accounted for 3.3 percent (44,879 acres) of the LRA. Medium textured soils (SMG's beginning with 2 or 3) occupied 20.2 percent (275,244 acres), coarse textured soils (SMG's beginning with 4 or 5) occupied 67.5 percent (921,175 acres), organic soils 5.7 percent and (78,366 acres) alluvial and gravelly soils accounted for 2.9 percent (39,354 acres) of the LRA. The remaining 0.4 percent (5,639 acres) was non-soil material.

Well drained soils occurred on 80.9 percent (1,104,155 acres) of the LRA. Somewhat poorly drained soils occupied

Table 54.--SMG's, their acreage, and percent of LRA 96.

SMG	Acreage	Percent
0c	1,663	0.1
1a	13,928	1.0
1b	2,906	0.2
1c	1,081	0.1
1.5a	17,877	1.3
1.5b	3,689	0.3
1.5c	3,735	0.3
2.5a	23,868	1.8
2.5a-s	215	tr.
2.5b	7,427	0.5
2.5b-s	1,702	0.1
2.5b-cs	835	0.1
2.5c	4,894	0.4
2.5c-c	590	tr.
3a	202,853	14.9
3a-s	2,714	0.2
3b	4,578	0.3
3b-s	5,815	0.4
3c-s	2,678	0.2
3/1c	5,974	0.4
3/2a	6,840	0.5
3/2b	1,361	0.1
3/5a	2,471	0.2
3/5b	429	tr.
4a	291,036	21.3
4b	5,035	0.4
4c	4,569	0.3
4/1b	208	tr.
4/2a	7,677	0.6
4/2b	19,224	1.4
4/2c	5,222	0.4
5a	338,154	24.8
5a-h	1,682	0.1
5b	15,942	1.2
5b-h	11,341	0.8
5c	34,389	2.5
5c-a	6,709	0.5
5/2a	4,028	0.3
5/2b	6,580	0.5
5.3a	151,759	11.1
5.7a	17,620	1.3
L-2c	3,642	0.3
L-4a	4,192	0.3
L-Mc	14,279	1.1
Mc	46,545	3.4
Mc-a	5,967	0.4
M/1c	1,663	0.1
M/3c	6,352	0.5
M/4c	16,405	1.2
M/mc	1,434	0.1
Ga	17,241	1.3
Misc.	5,639	0.4
TOTAL:	1,364,031	99.9

tr. = trace - less than 0.1

6.4 percent (87,072 acres) of the LRA and poorly and very poorly drained soils occupied 12.3 percent (167,791 acres).

Potentially prime farmland accounted for 11.6 percent (157,557 acres) of LRA 96. Potentially good farmland accounted for an additional 35.4 percent (483,404 acres). Unique farmland occupied 5.2 percent (71,191 acres), chiefly orchards.

Land Use

Forestry was areally the dominant land use in LRA 96, Table 1. It occurred on 51.6 percent of the LRA. Cropland accounted for 34.1 percent, of which 4.1 percent was row crops, 3.9 percent was grains, 9.2 percent was sod crops, 10.3 percent was idle, and 6.6 percent was fruit crops. Pasture accounted for 7.9 percent and other uses accounted for 6.5 percent.

Soils and Land Use

Appendix E lists each of the major land uses in each of the soil management units in LRA 96. Four SMG's accounted for greater than 5 percent each of the LRA. These were 3a, 4a, 5a and 5.3a. Combined, they accounted for 72 percent (983,802 acres) of the LRA.

Table 55 breaks SMG 3a down by SMU's and land uses. Row crops accounted for 7.2 percent of the SMG. This was concentrated on the gentle and moderate slopes, with al-

Table 55.--Land uses and percentage of slope classes in SMG 3a in LRA 96.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	5,410	8.0	8,502	10.0	414	0.9	14,534	7.2
Small Grains	6,001	8.8	7,713	9.1	0	0.0	13,921	6.9
Sod Crops	10,973	16.2	14,363	16.9	2,361	5.4	29,352	14.5
Idle	7,293	10.7	6,905	8.1	835	1.9	15,862	7.8
Fruit	16,102	23.7	15,297	18.1	1,771	4.1	33,794	16.7
All Cropland	45,779	67.4	52,780	62.3	5,381	12.3	107,463	53.0
Pasture	2,267	3.3	8,763	10.3	12,004	27.5	23,241	11.5
Forest	15,705	23.1	19,829	23.5	22,906	52.5	60,306	29.7
Other	4,152	6.1	3,306	3.9	3,348	7.7	11,846	5.8
TOTAL:	67,903	99.9	84,741	100.0	43,639	100.0	202,856	100.0

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	208	100.0	0	0.0	0	0.0
Small Grains	0	0.0	207	3.6	0	0.0
Sod Crops	0	0.0	1,655	28.8	0	0.0
Idle	0	0.0	829	14.4	0	0.0
Fruit	0	0.0	624	10.9	0	0.0
All Cropland	208	100.0	3,315	57.7	0	0.0
Pasture	0	0.0	207	3.6	0	0.0
Forest	0	0.0	1,596	27.8	207	33.2
Other	0	0.0	624	10.9	416	66.8
TOTAL:	208	100.0	5,742	100.0	623	100.0

most no row crops on the steep slopes. Small grains followed a similar pattern.

Sod crops occupied 14.5 percent of the SMG and could be found on all slopes. They accounted for 16 to 17 percent of lands with gentle or moderate slopes, and dropped to 5.4 percent of the steeply sloping lands. They also accounted for over one-fourth of the eroded moderate slopes.

Idle cropland decreases with increasing slope with one exception. This was the moderately sloping land with moderate or greater erosion. Idle cropland occupied 14.4 percent of those lands. Those lands were probably left idle when erosion was too severe to be properly farmed.

Orchards accounted for 23.7 percent of the lands having gentle slopes. Of the moderately sloping lands (moderate or less erosion) 18.1 percent were used for fruit production. The moderately sloping, eroded lands were used for fruit production 10.9 percent of the time. Only 4.1 percent of the steeply sloping (uneroded) lands were used for orchards. As a whole, 16.7 percent of the SMG was used for fruit production.

Total cropland averaged about 65 percent of the uneroded, gentle and moderately sloping lands, and slightly less (57.7 percent) of the eroded, moderately sloping lands. On the steeply sloping lands cropland dropped to 12.3 percent. Cropland occupied 53.0 percent of the total land in SMG 3a.

Pasture land, on the uneroded slopes, increased in

percentage as slope gradients increased. On the gentle slopes pasture accounted for only 3.3 percent but this increased to 10.3 percent of the moderately sloping lands and 27.5 percent of the steeply sloping lands. Pasture accounted for 11.5 percent of all lands in SMG 3a.

The percentage of forest land was fairly constant on gentle and moderate slopes at about 23 percent. The steeply sloping lands with moderate or less erosion were about half forested. The total forest acreage was 29.7 percent of the SMG.

Table 56, Table 57 and Table 58 break down SMG's 4a, 5a and 5.3a, respectively. These SMG's along with SMG 3a form a partial lithosequence.

Row crops decrease in importance as the soil profile gets coarser. On soils within SMG 3a the percentage of row crops was 7.2 percent, on 4a soils there was only 4.9 percent row crops, on the 5a soils there was 1.4 percent row crops and on the 5.3a soils there was only 0.4 percent row crops.

Grains seem to be distributed more by slope than by soil texture. Grains occurred on 6.9 percent of the lands in SMG 3a and about 2.6 percent of all the other SMG's. The percent of grains decreased as slope increased from gentle to moderate slopes and rarely occurred on the steep slopes.

Sod crops decreased in percentage as the soil profile got coarser. SMG 3a was 14.5 percent sod crops, SMG 4a was 11.4 percent, SMG 5a was 4.7 percent, and SMG 5.3a was 0.7 percent sod crops.

Table 56.--Land uses and percentage of slope classes in SMG 4a in LRA 96.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	9,580	9.2	4,367	4.6	208	0.3	14,155	4.9
Small Grains	4,779	4.6	2,700	2.8	0	0.0	7,479	2.6
Sod Crops	23,137	22.2	8,267	8.6	1,802	2.2	33,206	11.4
Idle	9,739	9.4	12,454	13.0	6,252	7.5	30,681	10.5
Fruit	11,408	11.0	13,933	14.5	197	0.2	28,846	9.9
All Cropland	58,643	56.3	41,721	43.5	8,459	10.2	114,367	39.3
Pasture	10,632	10.2	8,950	9.3	14,847	17.9	34,429	11.8
Forest	26,299	25.3	38,883	40.5	55,686	67.2	121,283	41.7
Other	8,577	8.2	6,388	6.7	3,816	4.6	20,962	7.2
TOTAL:	104,151	100.0	95,942	100.0	82,808	99.9	291,041	100.0

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0
Sod Crops	0	0.0	0	0.0	0	0.0
Idle	0	0.0	621	29.9	1,615	28.6
Fruit	208	50.1	1,247	60.1	1,853	32.8
All Cropland	208	50.1	1,868	90.0	3,468	61.4
Pasture	0	0.0	0	0.0	0	0.0
Forest	207	49.9	208	10.0	0	0.0
Other	0	0.0	0	0.0	2,181	38.6
TOTAL:	415	100.0	2,076	100.0	5,649	100.0

Table 57.--Land uses and percentage of slope classes in SMG 5a in LRA 96.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	3,808	2.3	844	0.9	0	0.0	4,850	1.4
Small Grains	6,992	4.3	1,506	1.6	0	0.0	8,906	2.6
Sod Crops	7,086	4.3	6,207	6.5	873	1.4	15,912	4.7
Idle	28,512	17.4	15,205	15.9	3,434	5.5	49,972	14.8
Fruit	10,715	6.6	4,429	4.6	204	0.3	16,585	4.9
All Cropland	57,113	34.9	28,191	29.6	4,511	7.3	96,225	28.5
Pasture	5,334	3.3	3,942	4.1	4,157	6.7	16,379	4.8
Forest	81,234	49.7	55,246	57.9	51,314	82.7	193,943	57.4
Other	19,878	12.2	8,020	8.4	2,063	3.3	30,982	9.2
TOTAL:	163,559	100.1	95,399	99.9	62,045	100.0	338,155	99.9

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	198	3.4	0	0.0
Small Grains	0	0.0	204	3.5	204	2.2
Sod Crops	0	0.0	0	0.0	1,746	19.2
Idle	0	0.0	1,625	28.1	1,196	13.2
Fruit	0	0.0	832	14.4	405	4.5
All Cropland	0	0.0	2,859	49.5	3,551	39.1
Pasture	0	0.0	1,702	29.5	1,244	13.7
Forest	2,287	100.0	1,214	21.0	3,274	36.0
Other	0	0.0	0	0.0	1,021	11.2
TOTAL:	2,287	100.0	5,775	100.0	9,090	100.0

Table 58.--Land uses and percentage of slope classes in SMG 5.3a in LRA 96.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	198	0.2	197	0.4	0	0.0	593	0.4
Small Grains	3,467	4.3	605	1.3	0	0.0	4,072	2.7
Sod Crops	852	1.0	218	0.5	0	0.0	1,070	0.7
Idle	9,450	11.6	2,291	5.1	0	0.0	14,366	9.5
Fruit	1,983	2.4	0	0.0	0	0.0	2.181	1.4
All Cropland	15,950	19.6	3,311	7.4	0	0.0	22,282	14.7
Pasture	843	1.0	2,297	5.1	437	2.3	3,577	2.4
Forest	63,182	77.5	38,706	86.1	17,289	89.2	121,623	80.1
Other	1,601	2.0	619	1.4	1,160	8.6	4,277	2.8
TOTAL:	81,576	100.1	44,933	100.0	19,386	100.1	151,759	100.0

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	198	3.9	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0
Sod Crops	0	0.0	0	0.0	0	0.0
Idle	0	0.0	2,427	48.1	198	100.0
Fruit	0	0.0	198	3.9	0	0.0
All Cropland	0	0.0	2,823	56.0	198	100.0
Pasture	0	0.0	0	0.0	0	0.0
Forest	623	100.0	1,823	36.1	0	0.0
Other	0	0.0	397	7.9	0	0.0
TOTAL:	623	100.0	5,043	100.0	198	100.0

Idle cropland increased in percentage through all but the sandiest of soils, where it declined somewhat. The lands in SMG 3a were 7.8 percent idle, those in 4a were 10.5 percent idle, those in 5a were 14.8 percent idle and those in 5.3a were 9.5 percent idle.

Fruit crops (mostly orchards) declined in importance as soils became coarser. It occupied 16.7 of the lands in SMG 3a and dropped to 1.4 percent of the lands in SMG 5.3a.

Total cropland followed a pattern similar to the orchards. It decreased from 53.0 percent in SMG 3a to only 14.7 percent of SMG 5.3a.

Lands in SMG's 3a and 4a were about 11.5 percent pasture. Pasture declined in importance on coarser soils. Only 4.9 percent of SMG 5a was pastured and only 2.4 percent of the lands in SMG 5.3a were pastured.

Forest land followed a trend opposite to most other uses. As the soil profile got coarser the percentage of forest land increased. On soils in SMG 3a there was 29.7 percent forest. The percentage went up to 41.7 percent on the soils in SMG 4a, 57.5 percent on the soils in SMG 5a and 80.1 percent on soils in SMG 5.3a.

Eroded SMU's were concentrated on the steep slopes in SMG's 4a and 5a, and were predominant on the moderate slopes in SMG 5.3a. Most of the eroded land in SMG 4a was cropland. Fruit crops and idle cropland were the only cropland uses found on the eroded slopes. On the eroded moderate

slopes there was twice as much fruit as idle. On the eroded steep slopes idle cropland, fruit crops and forests were of similar importance. A greater variety of uses were found on the eroded slopes of the 5a soils. All the gently sloping, eroded slopes were forested. The moderate sloping, eroded lands were about 50 percent cropland, 30 percent pasture and 20 percent forest. The eroded steep slopes were 36 percent forested, about 14 percent pasture and about 39 percent cropland. The eroded moderate slopes in SMG 5.3a were mostly idle cropland (48 percent) and forest (36 percent). Very small acreages of eroded slopes existed on the gentle or steep slopes.

Poorly drained, sandy soils (SMG 5c, Table 59) were used less intensively than their well drained counterparts. On similar slopes (0 to 6 percent) the poorly drained, 5c. soils had only 15.3 percent cropland. There was over twice that percentage used for cropland in the 5a soils (Table 57, first column). The percentage of pasture and forest is higher in the 5c soils to make up for the lesser percentage of cropland. Pasture accounted for 9.1 percent of the 5c soils, three times that of the 5a soils. Forests accounted for 73.2 percent of the 5c soils. This was about 24 percent more than the forested 5a soils.

Organic soils were even less intensively used than the poorly drained sandy soils. Table 60 presents the land uses of the deep organic soils (SMG Mc). Cropland accounted for only 3.6 percent of these soils and pasture accounted for

Table 59.--Land uses and percentage of SMG 5c in LRA 96.

Use	Acreage	Percent
Row Crops	198	0.6
Small Grains	1,210	3.6
Sod Crops	835	2.4
Idle	3,035	8.8
Fruit	0	0.0
All Cropland	5,278	15.3
Pasture	3,128	9.1
Forest	25,160	73.2
Other	823	2.4
TOTAL:	34,389	100.0

Table 60.--Land uses and percentage of SMG Mc in LRA 96.

Use	Acreage	Percent
Row Crops	416	0.9
Small Grains	0	0.0
Sod Crops	829	1.8
Idle	415	0.9
Fruit	0	0.0
All Cropland	1,660	3.6
Pasture	1,278	2.7
Forest	42,797	91.9
Other	811	1.7
TOTAL:	46,545	99.9

another 2.7 percent. Forests accounted for 91.9 percent, of SMG Mc.

Potential Future Uses

Cropland accounted for about 34 percent of LRA 96. This was the case in 1967 even though 47 percent of the LRA was potentially good or potentially prime farmland. Table 61 and Table 62, present the uses of the potentially prime and potentially good farmland, respectively. Note that about two-thirds of the potentially prime and less than half of the potentially good farmland was in cropland uses. This indicates an under utilization of potentially suitable farmland in LRA 96. Should the world or domestic demand for agricultural products increase, many acres in LRA 96 could be shifted from forest and other non-agricultural uses into agricultural production.

Another potential future use for some of the lands in LRA 96 is fruit production. Of all the SMU's that had at least 5 percent of their total acreage in fruit production, (Table 63), only about 13.2 percent were cropped to fruits in 1967, Table 63. Of the well drained SMU's only 13.1 percent had fruit crops on them, the somewhat poorly drained SMU's contained 23.9 percent fruit crops, and the poorly drained SMU's were 10.0 percent fruit crops. Thus there is a great potential to expand the fruit production in LRA 96. This is espically the case since about half (48.8 percent) of the unique lands were neither potentially prime nor

Table 61.--Use of potentially prime farmland in LRA 96.

Use	Acreage	Percent
Row Crops	15,605	9.9
Small Grains	17,425	11.1
Sod Crops	36,317	23.1
Idle	14,949	9.5
Fruit	19,750	12.5
All Cropland	104,046	66.0
Pasture	9,706	6.2
Forest	36,120	23.0
Other	7,685	4.9
TOTAL:	157,557	100.1

Table 62.--Use of potentially good farmland in LRA 96.

Use	Acreage	Percent
Row Crops	29,999	6.1
Small Grains	22,515	4.6
Sod Crops	63,569	13.0
Idle	44,402	9.1
Fruit	43,832	9.0
All Cropland	204,317	41.7
Pasture	41,221	8.4
Forest	211,132	43.1
Other	32,714	6.7
TOTAL:	489,384	99.9

Table 63.--Use of SMU's that include at least 5 percent unique farmland in LRA 96.

	Well Drained		Somewhat Poorly Drained		Poorly Drained	
Use	Acreage	Percent	Acreage	Percent	Acreage	Percent
Row Crops	37,522	5.9	0	0.0	0	0.0
Small Grains	30,102	4.7	208	3.6	802	9.8
Sod Crops	72,941	11.4	1,191	20.5	426	5.2
Idle	86,398	13.5	590	10.1	417	5.1
Fruit	83,939	13.1	1,390	23.9	813	10.0
All Cropland	310,902	48.7	3,379	58.1	2,458	30.1
Pasture	46,960	7.3	1,411	24.3	1,856	22.7
Forest	228,444	35.8	1,024	17.6	3,856	47.2
Other	52,677	8.2	0	0.0	0	0.0
TOTAL:	638,983	100.0	5,814	100.0	8,170	100.0

potentially good farmland.

LRA 97

Land Resource Area 97, the Southwestern Michigan Fruit and Truck Belt, is located in the southwestern corner of the Lower Peninsula (Figure 1). The total inventory acreage was 1,054,587 acres, or 3.4 percent of the state's inventory acreage.

This LRA is characterized by broad flat sandy plains and gently to moderately sloping moraines. Land uses were varied with 62.4 percent in cropland in 1967.

Soils

Each of the SMG's that occurred in LRA 97 and it's percentage of the LRA is listed in Table 64. Fine textured soils (SMG's beginning with a 1) accounted for 8.9 percent (93,521 acres) of the LRA, medium textured soils (SMG's beginning with a 2 or a 3) accounted for 39.2 percent (412,955 acres) and coarse textured soils (SMG's beginning with a 4 or a 5) accounted for 41.6 percent (438,507 acres). Organic soils occurred on 5.0 percent (52,781 acres) of the LRA. Alluvial soils occurred on 5.1 percent (53,891 acres) of the area. The remaining 0.3 percent (2,934 acres) was occupied by non-soil material.

Well drained soils occurred on 58.7 percent (619,263 acres) of the LRA. The somewhat poorly drained soils occupied 20.4 percent (215,190 acres) of the LRA and

Table 64.--SMG's, their acreage, and percentage of LRA 97.

SMG	Acreage	Percent	SMG	Acreage	Percent
1a	13,511	1.3	4b	9,848	0.9
1b	21,913	2.1	4c	9,849	0.9
1c	1,835	0.2	4/1b	33,300	3.2
1.5a	29,235	2.8	4/2a	5,653	0.5
1.5b	17,293	1.6	4/2b	782	0.1
1.5c	9,734	0.9	4/2c	2,293	0.2
2.5a	38,066	3.6	5a	17,561	1.7
2.5a-s	7,938	0.8	5b	69,224	6.6
2.5b	14,755	1.4	5b-h	3,053	0.3
2.5b-s	17,230	1.6	5c	42,988	4.1
2.5c	2,025	0.2	5/2a	25,618	2.4
2.5c-s	30,014	2.8	5/2b	17,320	1.6
3a	131,907	12.5	5.3a	154,101	14.6
3a-m	5,893	0.6	L-2a	9,221	0.9
3b	380	tr.	L-2bc	38,190	3.6
3c	425	tr.	L-4a	1,838	0.2
3/1a	19,977	1.9	L-4bc	4,030	0.4
3/1c	7,878	0.7	L-Mc	612	tr.
3/2a	8,681	0.8	Mc	37,346	3.5
3/2b	5,948	0.6	M/1c	422	tr.
3/5a	103,146	9.8	M/3c	3,561	0.3
3/5b	4,144	0.4	M/4c	2,407	0.2
3/5c	14,548	1.4	M/mc	9,045	0.9
4a	46,917	4.4	Misc.	2,934	0.3
			TOTAL:	1,054,587	99.8

tr. = trace - less than 0.1

poorly and very poorly drained soils occupied 20.6 percent (217,202 acres).

Slopes were mostly gentle with 79.9 percent (842,312 acres) of the LRA occurring on slopes less than 6 percent. The moderate slopes accounted for 16.5 percent (174,402 acres) and the steep slopes accounted for 3.6 percent (37,874 acres).

Potentially prime farmland occurred on 38.8 percent (409,087 acres) of the LRA and potentially good farmland occupied 31.4 percent (330,714 acres). Unique farmland occupied 7.7 percent (81,515 acres) of the total LRA.

Land Use

The dominant land use in LRA 97 was cropland in 1967, Table 1. It occurred on 62.4 percent of the LRA. Row crops accounted for 18.3 percent, small grains 7.9 percent, sod crops 11.2 percent, idle 13.3 percent and fruit crops accounted for 11.8 percent. Forests occupied 26.5 percent, pasture occupied 4.0 percent and other uses occupied the remaining 7.0 percent.

Soils and Land Use

Appendix F lists each of the land uses in each of the SMU's in LRA 97. Four SMG's each accounted for over 5 percent of the LRA. There were 3a, 3/5a, 5b and 5.3a. Also discussed are SMG's 2.5a, 4a, 5c and Mc.

Tables 65, 66, 68 and 71 illustrate land use by slope classes in a lithosequence, SMG's 2.5a, 3a, 4a, and 5.3a, respectively. Total cropland increased in percentage from the 2.5a to 3a soils and again from the 3a to the 4a soils, but declined in percentage from the 4a to the 5.3a soils. In general, the 5.3a soils were the least intensively used, with total cropland accounting for only 45.5 percent of it. The 2.5a, 3a, and 4a soils had between 70 and about 80 percent total cropland.

Cropland uses showed no definite trends as soil texture became coarser. Row crops, for example, were most common on the 4a soils and least common on the 5.3a soils and the 3a soils. Small grains were also most common on the 4a soils, but were in roughly equal percentages on the 2.5a and 3a soils and slightly less common on the 5.3a soils. Fruit crops increased in percentage up to the 5.3a soils where they decreased to a percentage about even with the 3a soils.

Pasture declined in percentage as texture became coarser, from 10.6 percent of the 2.5a soils to 1.0 percent of the 5.3a soils. Forests were equally common on the 2.5a and 3a soils, declined on the 4a soils and greatly increased on the 5.3a soils.

The well drained, two storied 3/5a soils (Table 67) were used slightly differently than any of the other well drained soils. About one-quarter was used for row crops, 9 percent was used for small grains, 15.4

Table 65.--Land uses and percentage of slope classes in SMG 2.5a in LRA 97.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	5,931	31.5	4,022	28.6	0	0.0	11,302	29.7
Small Grains	1,852	9.8	402	2.9	0	0.0	2,254	5.9
Sod Crops	4,414	23.5	1,623	11.5	0	0.0	6,246	16.4
Idle	1,207	6.4	1,587	11.3	570	30.0	3,744	9.8
Fruit	1,807	9.6	1,027	7.3	0	0.0	3,784	9.9
All Cropland	15,211	80.8	8,661	61.5	570	30.0	27,330	71.8
Pasture	818	4.3	3,043	21.6	190	10.0	4,051	10.6
Forest	2,386	12.7	1,768	12.6	1,140	60.0	5,674	14.9
Other	399	2.1	612	4.4	0	0.0	1,011	2.7
TOTAL:	18,814	99.9	14,084	100.1	1,900	100.0	38,066	100.0

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	1,349	58.2	0	0.0
Small Grains	0	0.0	0	0.0	0	0.0
Sod Crops	0	0.0	209	9.0	0	0.0
Idle	0	0.0	380	16.4	0	0.0
Fruit	760	100.0	190	8.2	0	0.0
All Cropland	760	100.0	2,128	91.8	0	0.0
Pasture	0	0.0	0	0.0	0	0.0
Forest	0	0.0	190	8.2	190	100.0
Other	0	0.0	0	0.0	0	0.0
TOTAL:	760	100.0	2,318	100.0	190	100.0

Table 66.--Land uses and percentage of slope classes in SMG 3a in LRA 97.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	14,413	20.5	2,684	8.5	0	0.0	19,408	14.7
Small Grains	6,381	9.1	1,439	4.5	0	0.0	10,236	7.7
Sod Crops	18,933	27.0	2,611	8.2	471	20.7	25,644	19.4
Idle	6,489	9.2	8,895	28.1	806	35.5	23,050	17.5
Fruit	13,038	18.6	4,869	15.4	0	0.0	20,322	15.4
All Cropland	59,254	84.4	20,498	64.7	1,277	56.2	98,660	74.8
Pasture	1,460	2.1	1,056	3.3	0	0.0	4,636	3.5
Forest	5,214	7.4	7,551	23.8	996	43.8	19,718	14.9
Other	4,264	6.1	2,589	8.2	0	0.0	8,895	6.7
TOTAL:	70,192	100.0	31,694	100.0	2,273	100.0	131,907	99.9

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	2,311	11.2	0	0.0
Small Grains	0	0.0	2,416	11.7	0	0.0
Sod Crops	0	0.0	3,001	14.6	628	11.9
Idle	471	25.6	5,210	25.3	1,179	22.3
Fruit	190	10.3	2,035	9.9	190	3.6
All Cropland	661	35.9	14,973	72.6	1,997	37.7
Pasture	0	0.0	1,492	7.2	628	11.9
Forest	1,179	64.0	2,815	13.7	1,963	37.0
Other	0	0.0	1,335	6.5	707	13.4
TOTAL:	1,840	99.9	20,615	100.0	5,295	100.0

Table 67.--Land uses and percentage of slope classes in SMG 3/5a in LRA 97.

Slope Classes	A+B		C+D		E+		TOTAL:	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	20,557	31.5	3,357	17.0	0	0.0	25,096	24.3
Small Grains	6,169	9.5	2,901	14.7	0	0.0	9,279	9.0
Sod Crops	12,621	19.4	2,005	10.1	209	3.2	15,849	15.4
Idle	2,075	3.2	779	3.9	628	9.7	5,401	5.2
Fruit	6,051	9.3	818	4.1	0	0.0	8,753	8.5
All Cropland	47,473	72.8	9,860	49.8	837	12.9	64,378	62.4
Pasture	1,958	3.0	2,061	10.4	209	3.2	6,289	6.1
Forest	5,730	8.8	3,957	20.0	5,194	80.2	15,718	15.2
Other	10,047	15.4	3,908	19.8	236	3.6	16,757	16.2
TOTAL:	65,208	100.0	19,786	100.0	6,476	99.9	103,146	99.9

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	1,182	13.7	0	0.0
Small Grains	0	0.0	209	2.4	0	0.0
Sod Crops	190	100.0	824	9.5	0	0.0
Idle	0	0.0	969	11.2	950	33.5
Fruit	0	0.0	1,884	21.8	0	0.0
All Cropland	190	100.0	5,068	58.6	950	33,5
Pasture	0	0.0	1,014	11.7	1,047	36.9
Forest	0	0.0	0	0.0	837	29.5
Other	0	0.0	2,566	29.7	0	0.0
TOTAL:	190	100.0	8,648	100.0	2,834	99.9

Table 68.--Land uses and percentage of slope classes in SMG 4a in LRA 97.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	13,884	45.0	2,186	19.2	0	0.0	16,260	34.7
Small Grains	3,888	12.6	1,432	12.6	402	29.5	5,931	12.6
Sod Crops	1,452	4.7	2,235	19.7	190	13.9	4,676	10.0
Idle	1,162	3.8	847	7.5	190	13.9	2,199	4.7
Fruit	5,371	17.4	2,360	20.8	0	0.0	8,681	18.5
All Cropland	25,757	83.6	9,060	79.7	782	57.4	37,747	80.5
Pasture	804	2.6	212	1.9	391	28.7	1,616	3.4
Forest	3,060	9.9	1,887	16.6	190	13.9	5,746	12.2
Other	1,179	3.8	209	1.8	0	0.0	1,809	3.9
TOTAL:	30,800	99.9	11,368	100.0	1,363	100.0	46,917	100.0

Slope Classes	AB eroded		C+D eroded	
Use	Acreage	%	Acreage	%
Row Crops	0	0.0	190	6.3
Small Grains	0	0.0	209	7.0
Sod Crops	0	0.0	799	26.6
Idle	0	0.0	0	0.0
Fruit	380	100.0	570	19.0
All Cropland	380	100.0	1,768	58.8
Pasture	0	0.0	209	7.0
Forest	0	0.0	609	20.3
Other	0	0.0	421	14.0
TOTAL:	380	100.0	3,007	100.1

Table 69.--Land uses and percentage of SMG 5c in LRA 97.

Use	Acreage	Percent
Row Crops	6,519	15.2
Small Grains	1,655	3.8
Sod Crops	4,838	11.3
Idle	8,620	20.1
Fruit	4,003	9.3
All Cropland	25,635	59.6
Pasture	1,696	3.9
Forest	14,666	34.1
Other	992	2.3
TOTAL:	42,988	99.9

Table 70.--Land uses and percentage of slope classes in SMG 5b in LRA 97.

Slope Classes	AB		AB eroded		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	8,086	11.9	0	0.0	8,086	11.7
Small Grains	2,656	3.9	0	0.0	2,656	3.8
Sod Crops	5,446	8.0	0	0.0	5,446	7.9
Idle	16,114	23.6	0	0.0	16,114	23.3
Fruit	8,906	13.1	0	0.0	8,906	12.9
All Cropland	41,208	60.4	0	0.0	41,208	59.5
Pasture	1,906	2.8	0	0.0	1,906	2.8
Forest	22,397	32.9	1,047	100.0	23,444	33.9
Other	2,666	3.9	0	0.0	2,666	3.9
TOTAL:	68,177	100.0	1,047	100.0	69,224	100.1

Table 71.--Land uses and percentage of slope classes in SMG 5.3a in LRA 97.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	13,294	12.1	1,217	6.7	0	0.0	15,120	9.8
Small Grains	3,995	3.6	425	2.3	0	0.0	5,260	3.4
Sod Crops	6,608	6.0	618	3.4	0	0.0	7,226	4.7
Idle	14,561	13.3	4,113	22.6	380	5.9	22,458	14.6
Fruit	15,065	13.8	3,506	19.3	0	0.0	20,017	13.0
All Cropland	53,523	48.9	9,879	54.3	380	5.9	70,081	45.5
Pasture	631	0.6	419	2.3	0	0.0	1,468	1.0
Forest	44,450	40.6	7,004	38.5	6,088	94.1	65,680	42.6
Other	10,957	10.0	896	4.9	0	0.0	16,870	10.9
TOTAL:	109,561	100.0	18,198	100.0	6,468	100.0	154,101	100.0

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	609	4.7	0	0.0
Small Grains	0	0.0	840	6.5	0	0.0
Sod Crops	0	0.0	0	0.0	0	0.0
Idle	1,272	60.2	2,132	16.5	0	0.0
Fruit	0	0.0	628	4.9	818	16.8
All Cropland	1,272	60.2	4,209	32.6	818	16.8
Pasture	0	0.0	209	1.6	209	4.3
Forest	840	39.8	6,689	51.9	609	12.5
Other	0	0.0	1,787	13.8	3,230	66.4
TOTAL:	2,112	100.0	12,894	99.9	4,866	100.0

percent for sod crops, 5.2 percent was idle and 8.5 percent was used for fruit crops. Total cropland accounted for 62.4 percent, 6.1 percent was pasture, and forest and other uses accounted for 15.2 percent and 16.2 percent, respectively.

Generally, as slope increased in the well drained soils cropland and it's component uses decreased and forest uses increased.

Table 69, Table 70 and Table 71 presents a topo-sequence (SMG's 5c, 5b and 5.3a, respectively) of sandy soils. Total cropland was a similar percentage of the poorly and somewhat poorly drained soils and dropped about 10 percent on the well drained, gently sloped soils. Cropland uses showed no consistent pattern of change with changes in drainage. Row crops were in slightly higher percentage on the 5c soils and lower, but similar on the 5b and 5.3a soils. Small grains were of a similar percentage of all of the SMG's. Sod crops were most common on the 5c soils and about equally common on the 5b and 5.3a soils. Idle cropland was most common on the wetter soils and least common on the dry 5.3a soils. Fruit crops were least common on the 5c soils and in about equal percentage on the 5b and 5.3a soils. Pasture land declined in percentage as the soils became drier, and forest lands were at a maximum percentage on the 5.3a soils and equally common on the 5b and 5c soils.

The deep organic soils (SMG Mc, Table 72) were dominantly forested. Cropland accounted for only about

Table 72.--Land uses and percentage of SMG Mc in LRA 97.

Use	Acreage	Percent
Row Crops	5,600	15.0
Small Grains	628	1.7
Sod Crops	1,249	3.3
Idle	2,878	7.7
Fruit	0	0.0
All Cropland	10,355	27.7
Pasture	4,105	11.0
Forest	20,128	53.9
Other	2,757	7.4
TOTAL:	37,345	100.0

one-quarter of the use of the organic soils, with row crops being the most common cropland use. Note the absence of fruit crops on the deep organic soils.

Potential Future Uses

Cropland accounted for about 62 percent of the land use in LRA 97, yet the potentially prime and potentially good farmland occurred on about 70 percent of the total LRA. Table 73 and Table 74 presents the use of the potentially prime and potentially good farmland, respectively. Note that 71.3 percent of the potentially prime and only 61.6 percent of the potentially good farmland was actually in cropland uses. Thus the suitable farmland was under used for agricultural uses. As world and local populations demands an increased supply of agricultural products much of the under used good farmland could be shifted to agricultural production.

Another potential use of some of the land in LRA 97 is for increased fruit production. Table 75 indicates how those SMU's that contained at least 5 percent fruit crops in 1967 were used. About 16 percent of the well drained and somewhat poorly drained SMU's, and about 11 percent of the poorly drained SMU's were actually used for fruit production. Thus there exists a great potential to increase fruit production in LRA 97 over the 1967 levels. This is especially the case since 23.3 percent of the lands in the potentially unique farmland (lands included in the

Table 73.--Use of potentially prime farmland in LRA 97.

Use	Acreage	Percent
Row Crops	97,434	23.8
Small Grains	46,449	11.4
Sod Crops	62,560	15.3
Idle	39,888	9.8
Fruit	45,262	11.1
All Cropland	291,593	71.3
Pasture	16,535	4.0
Forest	73,226	17.9
Other	27,733	6.8
TOTAL:	409,087	100.0

Table 74.--Use of potentially good farmland in LRA 97.

Use	Acreage	Percent
Row Crops	64,289	19.4
Small Grains	23,673	7.2
Sod Crops	34,581	10.5
Idle	44,006	13.3
Fruit	37,124	11.2
All Cropland	203,673	61.6
Pasture	15,682	4.7
Forest	91,441	27.6
Other	19,918	6.0
TOTAL:	330,714	99.9

Table 75.--Use of SMU's that include at least 5 percent unique farmland in LRA 97.

	Well Drained		Somewhat Poorly Drained		Poorly Drained	
Use	Acreage	Percent	Acreage	Percent	Acreage	Percent
Row Crops	104,219	20.4	33,900	16.6	10,105	14.0
Small Grains	38,828	7.6	16,814	8.2	5,546	7.7
Sod Crops	67,887	13.3	23,104	11.3	6,698	9.3
Idle	59,856	11.7	37,994	18.6	10,561	14.7
Fruit	81,256	15.9	32,379	15.8	7,529	10.5
All Cropland	352,046	69.0	144,191	70.5	40,439	56.2
Pasture	13,942	2.7	5,069	2.5	4,186	5.8
Forest	100,367	19.7	48,272	23.6	25,346	35.2
Other	43,529	8.5	6,869	3.4	1,961	2.7
TOTAL:	509,884	99.9	204,401	100.0	71,932	99.9

SMU's containing at least 5 percent fruit lands) were neither potentially prime nor potentially good farmland, and could be devoted to fruit production without competing with other cropland uses.

LRA 98

Land Resource Area 98, the Southern Michigan Drift Plain, occupies the central portion of the southern half of Michigan's Lower Peninsula. The 1967 inventory acreage was 7,819,067 acres, or 25.2 percent of the state's inventory acreage.

The area is characterized by large, gently sloping till and outwash plains, rolling moraines and large organic areas and some flood plains. The dominant land use in 1967 was cropland.

Soils

Table 76 lists the acreage of each SMG in the LRA and its percentage of the LRA. Fine textured soils (SMG's 0b, 0c, 1a, 1b, 1c, 1.5a, 1.5b and 1.5c) accounted for 8.5 percent (667,124 acres), medium textured soils (SMG's beginning with a 2 or a 3) accounted for 55.6 percent (4,345,618 acres), and coarser textured soils accounted for 23.1 percent (1,802,903 acres) of the LRA. Organic soils occurred on 9.0 percent (701,063 acres) of the LRA and alluvial soils occurred on 3.3 percent (259,718 acres) of the LRA. The remaining 0.1 percent (42,638 acres) was occupied by gravelly soils and miscellaneous non-soil materials.

Table 76.--SMG's, their acreage, and percentage of LRA 98.

SMG	Acreage	Percent	SMG	Acreage	Percent
0b	3,229	tr.	4a	582,479	7.4
0c	3,072	tr.	4b	176,121	2.3
1a	30,972	0.4	4c	115,977	1.5
1b	42,397	0.5	4/1a	1,129	tr.
1c	8,852	0.1	4/1b	34,571	0.4
1.5a	315,037	4.0	4/1c	5,448	0.1
1.5b	152,772	2.0	4/2a	37,285	0.5
1.5c	110,838	1.4	4/2b	40,008	0.5
2.5a	904,378	11.6	4/2b-s	814	tr.
2.5a-s	26,634	0.3	4/2c	27,634	0.4
2.5b	442,379	5.7	5a	118,243	1.5
2.5b-s	35,307	0.5	5b	85,086	1.1
2.5c	216,048	2.8	5b-h	6,395	0.1
2.5c-c	5,339	0.1	5c	165,331	2.1
2.5c-s	17,628	0.2	5c-a	1,268	tr.
2.5c-cs	1,035	tr.	5/2a	40,171	0.5
3a	970,182	12.4	5/2b	15,741	0.2
3b	89,698	1.1	5.3a	290,685	3.7
3b-s	6,965	0.1	5.7a	58,517	0.7
3c	54,951	0.7	L-2a	6,483	0.1
3c-s	8,834	0.1	L-2bc	208,783	2.7
3/1a	7,867	0.1	L-4a	13,815	0.2
3/1c	5,595	0.1	L-4bc	14,293	0.2
3/2a	101,476	1.3	L-Mc	16,344	0.2
3/2b	46,517	0.6	Mc	591,641	7.6
3/2c	6,527	0.1	Mc-a	8,148	0.1
3/5a	1,150,095	14.7	M/1c	2,584	tr.
3/5a-m	51,656	0.7	M/3c	17,673	0.2
3/5b	82,933	1.1	M/4c	52,742	0.7
3/5c	98,501	1.3	M/mc	28,275	0.4
3/Ra	14,041	0.2	Ga	434	tr.
3/Rc	1,032	tr.	Misc.	42,204	0.4
			TOTAL:	7,819,067	100.0

tr. = trace - less than 0.1

Well drained soils occurred on 60.4 percent (4,721,579 acres) of the LRA. Somewhat poorly drained soils occupied 16.1 percent (1,260,933 acres) of the LRA, and poorly drained and very poorly drained soils occurred on 23.0 percent (1,794,348 acres) of the LRA.

Slopes were dominantly gentle with 78.8 percent (6,164,954 acres) of the LRA having slopes less than 6 percent. Moderately sloping lands occurred on 18.0 percent (1,411,294 acres) and steeply sloping lands occupied the remaining 3.1 percent (242,819 acres).

LRA 98 is characterized by a significant acreage of high quality soils. Potentially prime farmland accounted for 48.2 percent (3,768,083 acres) of the LRA. Potentially good farmland accounted for an additional 37.4 percent (2,921,257 acres). There was no unique farmland in LRA 98 in 1967.

Land Use

Cropland accounted for 62.8 percent of the total land use in 1967, Table 1. Row crops accounted for 19.6 percent, small grains accounted for 12.7 percent, sod crops 19.5 percent, idle cropland 10.3 percent and fruit crops 0.7 percent. Of the non-cropland uses, pasture accounted for 5.7 percent, forest was 22.6 percent and other uses were 8.9 percent of the total land uses.

Soils and Land Use

Appendix G lists the acreage of each land use in each of the SMU's in LRA 98. Several lithosequences and toposequences will be discussed. The toposequences are 1.5a, 1.5b and 1.5c, 2.5a, 2.5b and 2.5c, 3a, 3b and 3c, 3/5a, 3/5b and 3/5c, 4a, 4b and 4c, and 5a, 5b and 5c. Lithosequences discussed are 1.5a, 2.5a, 3a, 4a, 5a, 5.3a and 5.7a, 1.5b, 2.5b, 3b, 4b and 5b, and 1.5c, 2.5c, 3c, 4c and 5c. SMG Mc will also be discussed.

Table 77, Table 78, and Table 79 present a toposequence of SMG's 1.5a, 1.5b and 1.5c, respectively. On the same slopes, the wettest (SMG 1.5c) of these moderately fine textured soils were the least intensively used. Total cropland was about 25 percent less than on the 1.5a or 1.5b soils, with forestry making up the difference. The 1.5a and 1.5b soils had roughly the same total cropland percentages but cropland uses were slightly different. Fruit crops and idle cropland were higher on the well drained 1.5a soils and row crops were higher on the 1.5b soils.

Table 80, Table 81 and Table 82 present a slightly coarser toposequence of SMG 2.5a, 2.5b and 2.5c, respectively. There were no great differences in the way any of the three were used, however, pasture and forest uses increased somewhat on the wetter soils and sod crops and idle cropland decreased on the wetter soils.

Table 77.--Land uses and percentage of slope classes in SMG 1.5a in LRA 98.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	55,218	26.9	12,493	16.8	621	9.6	71,067	22.6
Small Grains	34,839	17.0	8,934	12.0	413	6.4	46,523	14.8
Sod Crops	47,749	23.3	19,824	26.7	0	0.0	74,694	23.7
Idle	16,949	8.3	8,736	11.8	412	6.4	30,612	9.7
Fruit	8,694	4.2	2,888	3.9	213	3.3	12,860	4.1
All Cropland	163,449	79.6	52,875	71.2	1,659	25.8	235,756	74.8
Pasture	4,706	2.3	3,581	4.8	402	6.2	11,390	3.6
Forest	16,014	7.8	10,808	14.5	3,441	53.4	36,289	11.5
Other	21,128	10.3	7,018	9.4	939	14.6	31,604	10.0
TOTAL:	205,297	100.0	74,282	99.9	6,441	100.0	315,037	99.9

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	2,735	11.9	0	0.0
Small Grains	0	0.0	2,337	10.2	0	0.0
Sod Crops	213	100.0	6,060	26.4	848	14.5
Idle	0	0.0	3,666	16.0	849	14.6
Fruit	0	0.0	852	3.7	213	3.7
All Cropland	213	100.0	15,650	68.1	1,910	32.7
Pasture	0	0.0	1,644	7.2	1,057	18.1
Forest	0	0.0	3,557	15.5	2,469	42.3
Other	0	0.0	2,120	9.2	399	6.8
TOTAL:	213	100.0	22,971	100.0	5,835	99.9

Table 78.--Land uses and percentage of SMG 1.5b in LRA 98.

Use	Acreage	Percent
Row Crops	51,929	34.0
Small Grains	28,086	18.4
Sod Crops	35,740	23.4
Idle	8,455	5.5
Fruit	1,017	0.7
All Cropland	125,227	82.0
Pasture	7,236	4.7
Forest	13,557	8.9
Other	6,753	4.4
TOTAL:	152,772	100.0

Table 79.--Land uses and percentage of SMG 1.5c in LRA 98.

Use	Acreage	Percent
Row Crops	23,811	21.5
Small Grains	14,552	13.1
Sod Crops	15,837	14.3
Idle	7,251	6.5
Fruit	414	0.4
All Cropland	61,865	55.8
Pasture	7,303	6.6
Forest	37,350	33.7
Other	4,319	3.9
TOTAL:	110,838	100.0

Table 80.--Land uses and percentage of slope classes in SMG 2.5a in LRA 98.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	4,652	22.9	1,306	27.8	0	0.0	5,958	22.4
Small Grains	4,048	19.9	656	14.0	0	0.0	4,704	17.7
Sod Crops	5,722	28.2	810	17.2	202	50.0	6,734	25.3
Idle	1,843	9.1	660	14.0	0	0.0	2,503	9.4
Fruit	382	1.9	0	0.0	0	0.0	382	1.4
All Cropland	16,647	81,9	3,432	73.1	202	50.0	20,281	76.1
Pasture	382	1.9	0	0.0	0	0.0	382	1.4
Forest	419	2.1	645	13.7	202	50.0	1,468	5.5
Other	2,873	14.1	621	13.2	0	0.0	4,503	16.9
TOTAL:	20,321	100.0	4,698	100.0	404	100.0	26,634	99.9

Slope Classes	C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%
Row Crops	0	0.0	0	0.0
Small Grains	0	0.0	0	0.0
Sod Crops	0	0.0	0	0.0
Idle	0	0.0	0	0.0
Fruit	0	0.0	0	0.0
All Cropland	0	0.0	0	0.0
Pasture	0	0.0	0	0.0
Forest	0	0.0	202	20.0
Other	202	100.0	807	80.0
TOTAL:	202	100.0	1,009	100.0

Table 81.--Land uses and percentage of SMG 2.5a in LRA 98.

Use	Acreage	Percent
Row Crops	128,799	29.1
Small Grains	97,590	22.1
Sod Crops	93,808	21.2
Idle	32,301	7.3
Fruit	1,457	0.3
All Cropland	353,955	80.0
Pasture	13,208	3.0
Forest	44,047	10.0
Other	31,171	7.0
TOTAL:	442,381	100.0

Table 82.--Land uses and percentage of SMG 2.5c in Lra 98.

Use	Acreage	Percent
Row Crops	68,401	31.7
Small Grains	39,163	18.1
Sod Crops	41,591	19.3
Idle	9,218	4.3
Fruit	414	0.2
All Cropland	158,787	73.5
Pasture	9,890	4.6
Forest	31,829	14.7
Other	15,542	7.2
TOTAL:	216,048	100.0

SMG's 3a, 3b and 3c, a slightly coarser toposequence is presented in Table 83, Table 84 and Table 85, respectively. Note that the 3c soils had significantly less cropland than the better drained soils. Note, also, that on similar slopes, the well drained soils were somewhat more intensively used. Row crops and small grains were more common on the 3b soils even though the total cropland was higher on the 3a soils.

Table 86, Table 87 and Table 88 present a toposequence of two-storied soils. These are SMG's 3/5a, 3/5b and 3/5c, respectively. Notice the similarity between each of the SMG's here and its single-storied counterpart (SMG 3a, 3b and 3c, respectively). Again, the well drained soils were most intensively used and the poorly drained soils were by far the least intensively used. Row crops and small grains were most common on the somewhat poorly drained soils and other cropland uses were most common on the well drained soils. Forests increased in percentage on the wetter soils. Pastures were least abundant on the well drained soils and equally common on the wetter soils.

Table 89, Table 90 and Table 91 present a coarser, single-storied toposequence of SMG's 4a, 4b, and 4c, respectively. Total cropland declined as drainage became wetter, as did most cropland uses. Row crops, however, were at a maximum percent on the somewhat poorly drained 4b soils, as was pasture. Forest lands increased in percentage as drainage became wetter.

Table 83.--Land uses and percentage of slope classes in SMG 3a in LRA 98.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	179,615	27.3	33,877	16.5	190	0.9	222,828	23.0
Small Grains	97,916	14.9	21,587	10.5	216	1.0	132,131	13.6
Sod Crops	176,056	26.7	47,417	23.1	936	4.5	243,716	25.1
Idle	71,269	10.8	28,337	13.8	2,923	14.1	116,292	12.0
Fruit	3,928	0.6	1,312	0.6	0	0.0	5,240	0.5
All Cropland	528,784	80.3	132,530	64.5	4,265	20.6	720,207	74.2
Pasture	16,857	2.6	12,651	6.2	2,504	12.1	44,154	4.6
Forest	59,466	9.0	38,197	18.6	11,878	57.3	120,553	12.4
Other	53,568	8.1	22,062	10.7	2,082	10.0	85,272	8.8
TOTAL:	658,675	100.0	205,440	100.0	20,729	100.0	970,182	100.0

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	214	5.9	8,691	14.0	241	1.2
Small Grains	641	17.6	10,732	17.2	1,039	5.3
Sod Crops	1,488	40.8	15,009	24.1	2,810	14.5
Idle	634	17.4	11,412	18.3	1,717	8.8
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	2,977	81.6	45,844	73.6	5,807	29.9
Pasture	0	0.0	5,946	9.5	6,196	31.9
Forest	0	0.0	7,453	12.0	3,559	18.3
Other	672	18.4	3,023	4.9	3,865	19.9
TOTAL:	3,649	100.0	62,266	100.0	19,427	100.0

Table 84.--Land uses and percentage of SMG 3b in LRA 98.

Use	Acreage	Percent
Row Crops	29,454	32.8
Small Grains	16,262	18.1
Sod Crops	18,517	20.6
Idle	4,688	5.2
Fruit	0	0.0
All Cropland	68,921	76.8
Pasture	2,751	3.1
Forest	12,100	13.5
Other	5,927	6.6
TOTAL:	89,698	100.0

Table 85.--Land uses and percentage of SMG 3c in LRA 98.

Use	Acreage	Percent
Row Crops	6,467	11.8
Small Grains	5,825	10.6
Sod Crops	5,034	9.2
Idle	6,919	12.6
Fruit	0	0.0
All Cropland	24,245	44.1
Pasture	5,232	9.5
Forest	23,174	42.2
Other	2,299	4.2
TOTAL:	54,951	100.0

Table 86.--Land uses and percentage of slope classes inSMG 3/5a in LRA 98.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	192,142	27.4	34,124	12.3	202	0.4	233,989	20.3
Small Grains	101,266	14.4	26,624	9.6	844	1.8	140,436	12.2
Sod Crops	179,583	25.6	69,119	24.9	2,690	5.7	281,950	24.5
Idle	88,911	12.7	40,523	14.6	4,187	8.9	150,185	13.1
Fruit	5,713	0.8	2,742	1.0	0	0.0	9,007	0.7
All Cropland	567,615	81.0	173,132	62.4	7,923	16.9	815,567	70.9
Pasture	28,013	4.0	27,142	9.8	15,603	33.3	87,019	7.6
Forest	54,974	7.8	58,642	21.2	20,977	44.8	163,275	14.2
Other	50,586	7.2	18,340	6.6	2,340	5.0	84,238	7.3
TOTAL:	701,188	100.0	277,256	100.0	46,843	100.0	1,150,095	100.0

Slope Classes	A+B eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	207	13.1	6,281	7.0	1,033	3.1
Small Grains	448	28.3	10,222	11.4	1,032	3.1
Sod Crops	690	43.6	22,747	25.4	7,121	21.2
Idle	0	0.0	11,722	13.1	4,842	14.4
Fruit	0	0.0	552	0.6	0	0.0
All Cropland	1,345	85.0	51,524	57.5	14,028	41.7
Pasture	0	0.0	9,757	10.9	6,504	19.3
Forest	236	14.9	18,886	21.1	9,560	28.4
Other	0	0.0	9,449	10.5	3,523	10.5
TOTAL:	1,581	99.9	89,616	100.0	33,615	99.9

Table 87.--Land uses and percentage of SMG 3/5b in LRA 98.

Use	Acreage	Percent
Row Crops	24,311	29.3
Small Grains	12,599	15.2
Sod Crops	17,893	21.6
Idle	8,353	10.1
Fruit	0	0.0
All Cropland	63,156	76.2
Pasture	6,085	7.3
Forest	9,939	12.0
Other	3,753	4.5
TOTAL:	82,933	100.0

Table 88.--Land uses and percentage of SMG3/5c in LRA 98.

Use	Acreage	Percent
Row Crops	21,843	22.2
Small Grains	8,526	8.7
Sod Crops	10,208	10.4
Idle	8,347	8.5
Fruit	0	0.0
All Cropland	48,924	49.7
Pasture	6,970	7.1
Forest	34,220	34.7
Other	8,387	8.5
TOTAL:	98,501	100.0

Table 89.--Land uses and percentage of slope classes in SMG 4a in LRA 98.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	74,064	20.7	16,047	10.8	426	2.4	93,293	16.0
Small Grains	45,486	12.7	12,799	8.6	0	0.0	59,976	10.3
Sod Crops	76,987	21.5	31,098	20.9	202	1.2	118,799	20.4
Idle	56,973	15.9	20,011	13.4	1,896	10.8	94,316	16.2
Fruit	1,928	0.5	2,121	1.4	0	0.0	4,049	0.7
All Cropland	255,438	71.2	82,076	55.1	2,524	14.4	370,433	63.6
Pasture	29,143	8.1	11,564	7.8	863	4.9	51,190	8.8
Forest	46,893	13.1	43,913	29.5	14,150	80.7	119,208	20.5
Other	27,126	7.6	11,390	7.6	0	0.0	41,648	7.2
TOTAL:	358,600	100.0	148,943	100.0	17,537	100.0	582,479	100.1

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	2,756	7.2	0	0.0
Small Grains	0	0.0	1,425	3.7	266	1.6
Sod Crops	0	0.0	8,784	23.1	1,728	10.3
Idle	1,491	58.3	9,207	24.2	4.738	28.2
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	1,491	58.3	22,172	58.3	6,732	40.0
Pasture	0	0.0	5,704	15.0	3,916	23.3
Forest	1,065	41.7	8,291	21.8	4,896	29.1
Other	0	0.0	1,867	4.9	1,265	7.5
TOTAL:	2,556	100.0	38,034	100.0	16,809	99.9

Table 90.--Land uses and percentage of SMG 4b in LRA 98.

Use	Acreage	Percent
Row Crops	48,535	27.6
Small Grains	19,667	11.2
Sod Crops	29,107	16.5
Idle	18,937	10.8
Fruit	0	0.0
All Cropland	116,246	66.0
Pasture	19,624	11.1
Forest	32,803	18.6
Other	7,447	4.3
TOTAL:	176,121	100.0

Table 91.--Land uses and percentage of SMG 4c in LRA 98.

Use	Acreage	Percent
Row Crops	17,145	14.8
Small Grains	5,176	4.5
Sod Crops	11,972	10.3
Idle	7,735	6.7
Fruit	0	0.0
All Cropland	42,028	36.2
Pasture	11,487	9.9
Forest	57,930	50.0
Other	4,531	3.9
TOTAL:	115,977	100.0

The coarsest textured toposequence, SMG 5a, 5b and 5c is presented in Table 92, Table 93 and Table 94, respectively. The poorest drained member (5c) was the least intensively used, with total cropland accounting for only 38.3 percent and forests accounting for 52.9 percent. The other two members have similar, but slightly higher cropland percentages. Cropland uses varied widely in their response to changing drainage. Row crops, for example, were at their maximum percentage on the 5b soils. Small grains were at their minimum percentage on the 5b soils. Sod crops decrease in percentage with increasing wetness and idle cropland increased in percentage with increasing wetness. Pasture land, although quite low in percentage, was highest on the 5b soils. Forest land was at the lowest percentage on the 5b soils, slightly higher on the 5a soils, and much more common on the 5c soils.

There are three different lithosequences presented here, one for each of the drainage classes. The well drained lithosequence (SMG's 1.5a, 2.5a, 3a, 4a, 5a, 5.3a and 5.7a) is presented in Tables 77, 80, 83, 89, 92, 95 and 96, respectively. Total cropland was at a maximum in SMG 2.5a, as were small grains. Row crops were similar in percentage for the 1.5a, 2.5a and 3a soils and then declined on the coarser textured soils. Sod crops increased from the 1.5a to the 2.5a and again to the 3a soils, and declined on the coarser textured soils. Idle cropland was at a maximum on the 4a soils, as was pasture land. Forest

Table 92.--Land uses and percentage of slope classes in SMG 5a in LRA 98.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	7,210	8.9	2,112	9.2	0	0.0	10,200	8.6
Small Grains	6,422	7.9	638	2.8	0	0.0	7,486	6.3
Sod Crops	11,856	14.6	3,823	16.6	213	6.1	16,318	13.8
Idle	10,654	13.1	1,672	7.3	206	5.9	15,749	13.3
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	36,142	44.5	8,245	35.8	419	12.1	49,753	42.1
Pasture	2,038	2.5	4,231	18.4	225	6.5	6,902	5.8
Forest	36,548	45.0	10,123	44.0	2,825	81.4	53,875	45.6
Other	6,487	8.0	423	1.8	0	0.0	7,713	6.5
TOTAL:	81,215	100.0	23,022	100.0	3,469	100.0	118,243	100.0

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	878	12.3	0	0.0
Small Grains	0	0.0	426	6.0	0	0.0
Sod Crops	0	0.0	426	6.0	0	0.0
Idle	736	38.2	2,481	34.9	0	0.0
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	736	38.2	4,211	59.2	0	0.0
Pasture	0	0.0	408	5.7	0	0.0
Forest	1,007	52.3	2,094	29.4	1,278	85.7
Other	184	9.5	406	5.7	213	14.3
TOTAL:	1,927	100.0	7,119	100.0	1,491	100.0

Table 93.--Land uses and percentage of slope classes in SMG 5b in LRA 98.

Slope Classes	AB		AB eroded		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	12,434	14.7	0	0.0	12,434	14.6
Small Grains	4,227	5.0	0	0.0	4,227	5.0
Sod Crops	6,212	7.3	0	0.0	6,212	7.3
Idle	13,542	16.0	0	0.0	13,542	15.9
Fruit	368	0.4	0	0.0	368	0.4
All Cropland	36,783	43.4	0	0.0	36,783	43.2
Pasture	3,783	4.5	0	0.0	3,783	4.4
Forest	36,203	42.7	368	100.0	36,571	43.0
Other	7,949	9.4	0	0.0	7,949	9.3
TOTAL:	84,718	100.0	368	100.0	85,086	99.9

Table 94.--Land uses and percentage of SMG 5c in LRA 98.

Use	Acreage	Percent
Row Crops	15,675	9.5
Small Grains	9,755	5.9
Sod Crops	10,417	6.3
Idle	27,170	16.4
Fruit	385	0.2
All Cropland	63,402	38.3
Pasture	6,057	3.7
Forest	87,399	52.9
Other	8,472	5.1
TOTAL:	165,331	100.0

Table 95.--Land uses and percentage of slope classes in SMG5.3a in LRA98.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	15,505	8.9	2,962	4,7	0	0.0	18,886	6.5
Small Grains	8,510	4.9	1,867	2.9	0	0.0	11,229	3.9
Sod Crops	23,756	13.6	4,238	6.7	821	4.0	29,897	10.3
Idle	15,970	9.2	11,946	18.8	1,070	5.2	35,288	12.1
Fruit	608	0.3	1,857	2.9	0	0.0	2,465	0.8
All Cropland	64,349	37.0	22,870	36.0	1,891	9.2	97,765	33.6
Pasture	3,541	2.0	1,704	2.7	213	1.0	6,470	2.2
Forest	86,147	49.5	34,092	53.7	16,844	81.6	155,327	53.4
Other	20,010	11.5	4,853	7.6	1,697	8.2	31,125	10.7
TOTAL:	174,047	100.0	63,519	100.0	20,645	100.0	290,685	99.9

Slope Classes	AB eroded		C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%	Acreage	%
Row Crops	0	0.0	419	2.0	0	0.0
Small Grains	0	0.0	852	4.1	0	0.0
Sod Crops	0	0.0	639	3.1	443	5.2
Idle	1,161	35.9	4,121	19.9	1,020	12.0
Fruit	0	0.0	0	0.0	0	0.0
All Cropland	1,161	35.9	6,031	29.1	1,463	17.2
Pasture	184	5.7	626	3.0	202	2.4
Forest	1,485	45.9	11,260	54.3	5,499	64.6
Other	404	12.5	2,819	13.6	1,342	15.8
TOTAL:	3,234	100.0	20,736	100.0	8,506	100.0

Table 96.--Land uses and percentage of slope classes in SMG 5.7a in LRA 98.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	1,260	4.6	1,050	4.4	0	0.0	2,310	3.9
Small Grains	1,050	3.8	2,100	8.9	0	0.0	3,150	5.4
Sod Crops	1,680	6.1	2,310	9.7	0	0.0	3,990	6.8
Idle	2,940	10.7	2,520	10.6	0	0.0	5,460	9.3
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	6,930	25.2	7,980	33.7	0	0.0	14,910	25.5
Pasture	0	0.0	0	0.0	184	5.0	184	0.3
Forest	19,951	72.5	15,125	63.8	3,496	95.0	42,185	72.1
Other	630	2.3	607	2.6	0	0.0	1,237	2.1
TOTAL:	27,511	100.0	23,712	100.1	3,680	100.0	58,517	100.0

Slope Classes	AB eroded	
Use	Acreage	%
Row Crops	0	0.0
Small Grains	0	0.0
Sod Crops	0	0.0
Idle	0	0.0
Fruit	0	0.0
All Cropland	0	0.0
Pasture	0	0.0
Forest	3,613	100.0
Other	0	0.0
TOTAL:	3,613	100.0

land was at a minimum on the 2.5a soils and increased in percentage as textures became coarser, particularly on the coarsest groups.

Increased slopes had the same general effect throughout the textural range. As slopes increased (particularly above 18 percent) generally cropland and it's component uses decreased and forest uses increased.

The somewhat poorly drained lithosequence (SMG's 1.5b, 2.5b, 3b, 4b and 5b) is presented in Tables 78, 81, 84, 90 and 93, respectively. It shows trends similar to those found in the well drained soils. Total cropland,row crops, grains and sod crops generally declined as soils became coarser. Idle cropland generally increased as texture got coarser. Pasture was at a minimum percentage on the 2.5b and 3b soils and was more abundant on the 1.5b and 4b soils. It declined in percentage on the 5b soils. Forest land increased in percentage as textures became coarser.

The poorly drained lithosequence (SMG's 1.5c, 2.5c, 3c, 4c and 5c) is presented in Tables 79, 82, 85, 91 and 94, respectively. In general the trends were similar to those of the somewhat poorly drained lithosequence. Total cropland, row crops, grains and sod crops were at a maximum on the 2.5c group. They declined in percentage as texture became coarser. Forest land roughly increased in percentage as texture became coarser. Pasture was at a maximum on the 3c soils and decreased in percentage on the finer and coarser textured soils. Idle cropland showed no definite pattern of change with changing texture.

Table 97 presents land use for SMG Mc. Note the low percentage for total cropland (24.6 percent), and high percentages for forest (47.4 percent) and other uses (19.4 percent).

Potential Future Uses

About 63 percent of LRA 98 was used for cropland in 1967. This was the case even though about 86 percent of the LRA was potentially good or potentially prime farmland. Table 98 and Table 99 presents the uses of the potentially prime and potentially good farmland, respectively. About 77 percent of the potentially prime and only about 51 percent of the potentially good farmland was actually in cropland uses in 1967. The LRA was, then, under-utilized relative to cropland. As future demands for food and fiber products increase, a considerable percentage of LRA 98 could be shifted from non-cropland uses into agricultural production to help fill those needs.

Table 97.--Land uses and percentage of slope classes in SMG Mc in LRA 98.

Slope Classes	A+B		A+B eroded		C+D		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	56,526	9.6	0	0.0	0	0.0	56,526	9.6
Small Grains	12,753	2.2	0	0.0	0	0.0	12,753	2.2
Sod Crops	29,782	5.1	0	0.0	0	0.0	29,782	5.0
Idle	45,965	7.8	0	0.0	0	0.0	45,965	7.8
Fruit	413	0.1	0	0.0	0	0.0	413	0.1
All Cropland	145,439	24.8	0	0.0	0	0.0	145,439	24.6
Pasture	49,804	8.5	826	16.0	0	0.0	50,630	8.6
Forest	279,078	47.6	1,238	24.0	200	100.0	280,516	47.4
Other	111,960	19.1	3,096	60.0	0	0.0	115,056	19.4
TOTAL:	586,281	100.0	5,160	100.0	200	100.0	591,641	100.0

Table 98.--Use of potentially prime farmland in LRA 98.

Use	Acreage	Percent
Row Crops	1,003,586	26.6
Small Grains	652,321	17.3
Sod Crops	875,298	23.2
Idle	339,305	9.0
Fruit	31,158	0.8
All Cropland	2,901,668	77.0
Pasture	137,807	3.7
Forest	470,774	12.5
Other	257,834	6.8
TOTAL:	3,768,083	100.0

Table 99.--Use of potentially good farmland in LRA 98.

Use	Acreage	Percent
Row Crops	423,594	14.5
Small Grains	252,905	8.7
Sod Crops	456,653	15.6
Idle	333,190	11.4
Fruit	14,912	0.5
All Cropland	1,481,254	50.7
Pasture	233,536	8.0
Forest	900,385	30.8
Other	306,082	10.5
TOTAL:	2,921,257	100.0

LRA 99

Land Resource Area 99, the Erie-Huron Lake Plain is located along the eastern coast of Michigan's Lower Peninsula from mid-state southward (Figure 1). The total inventory acreage was 4,224,167 which was 13.6 percent of the total Michigan inventory acreage.

The area is characterized by broad, large, flat, lake and till plains. The dominant land use in 1967 was cropland, with row crops being found on about one-third of all the lands in the area.

Soils

Table 100 lists the acreage of each SMG in the LRA and its percentage of the LRA. Fine textured soils (SMG's 0c, 1a, 1b, 1c, 1.5a, 1.5b and 1.5c) accounted for 24.4 percent (1,030,923 acres) of the LRA, medium textured soils (SMG's beginning with a 2 or a 3) accounted for 43.0 percent (1,816,159 acres) of the LRA, and coarse textured soils accounted for 26.9 percent (1,134,458 acres). Organic soils occupied 2.4 percent (99,454 acres) of the LRA, and alluvial

Table 100.--SMG's, their acreage, and percent of LRA 99.

SMG	Acreage	Percent	SMG	Acreage	Percent
0c	9,263	0.2	4c	63,605	1.5
1a	4,902	0.1	4/1a	217	tr.
1b	102,087	2.4	4/1b	77,760	1.8
1c	112,313	2.7	4/1c	11,079	0.3
1.5a	83,755	2.0	4/2a	16,232	0.4
1.5b	277,419	6.6	4/2b	138,942	3.3
1.5c	441,184	10.4	4/2b-s	10,827	0.3
2.5a	168,709	4.0	4/2c	69,984	1.7
2.5a-s	2,573	0.1	4/2c-c	6,556	0.2
2.5b	539,786	12.8	5a	13,518	0.3
2.5b-a	217	tr.	5b	142,357	3.4
2.5b-s	97,662	2.3	5b-h	6,598	0.2
2.5b-cs	4,201	0.1	5c	212,415	5.0
2.5c	487,214	11.5	5c-a	8,117	0.2
2.5c-c	71,118	1.7	5/2a	21,556	0.5
2.5c-s	42,739	1.0	5/2b	58,610	1.4
3a	44,271	1.0	5.3a	90,407	2.1
3b	13,327	0.3	5.7a	2,174	0.1
3b-s	1,738	tr.	L-2a	22,954	0.5
3c	3,498	0.1	L-2c	95,787	2.3
3c-s	10,546	0.2	L-4a	1,749	tr.
3/1c	59,798	1.4	L-4c	1,018	tr.
3/2a	30,735	0.7	L-Mc	652	tr.
3/2b	130,153	3.1	Mc	46,115	1.1
3/2c	60,732	1.4	Mc-a	3,038	0.1
3/5a	17,905	0.4	M/1c	2,044	tr.
3/5b	16,634	0.4	M/3c	19,414	0.5
3/5c	9,853	0.2	M/4c	20,616	0.5
3/Ra	2,530	0.1	M/mc	8,227	0.2
3/Rbc	220	tr.	Gbc	2,248	0.1
4a	58,099	1.4	Misc.	18,761	0.4
4b	125,405	3.0	TOTAL:	4,224,167	100.0

tr. = trace - less than 0.1

soils occupied 2.9 percent (122,160 acres) of the LRA. The remaining 0.5 percent (21,009 acres) was gravelly soils, non-soil materials and unidentified acreage.

Well drained soils occurred on 13.8 percent (582,286 acres) of the LRA, somewhat poorly drained soils occurred on 41.3 percent (1,743,723 acres) of the LRA, and poorly and very poorly drained soils occurred on 44.5 percent (1,879,393 acres) of the LRA.

Slopes were overwhelmingly flat with 96.5 percent (4,075,407 acres) of the LRA occurring on land with gentle slopes. About 3.1 percent (130,948 acres) of the LRA had moderate slopes and the remaining 0.4 percent (17,812 acres) had steep slopes.

Potentially prime farmland accounted for 67.7 percent (2,860,041 acres) of the LRA. Potentially good farmland accounted for an additional 25.0 percent (1,055,285 acres). No unique farmland occurred in LRA 99 in 1967.

Land Use

Cropland accounted for 72.5 percent of LRA 99, Table 1. Row crops accounted for about one-third (35.0 percent), 16.4 percent was small grains, 13.1 percent sod crops, 7.6 percent was idle cropland and 0.3 percent was fruit crops. Pasture accounted for only 2.9 percent, forest accounted for 18.2 percent and other uses accounted for the remaining 6.5 percent of the land in this LRA.

Soils and Land Use

Appendix H lists the acreage of each land use in each SMU in LRA 99. Five SMG's each made up at least 5 percent of LRA 99. These were 1.5b, 1.5c, 2.5b, 2.5c and 5c. Also discussed are SMG's 1b, 1c, 2.5a, 3/2b, 4b, 4/2b and 5b.

Table 101 and Table 102 present the uses of SMG's 1b and 1c, respectively, a toposequence. The poorly drained member (1c), was more intensively used than was the somewhat poorly drained member (1b). The percentage of cropland was over 10 percent higher on the poorly drained 1c soils. This was mostly due to the greater percentage of row crops found on the 1c soils.

Slightly coarser textured soils with the same drainage classes (1.5b and 1.5c, Table 103 and Table 104, respectively) were more even in the intensity of their cropland use (about 85 percent), but row crops were more common on the somewhat poorly drained member and idle cropland was more common on the poorly drained member of the toposequence.

SMG's 2.5a (Table 105), 2.5b (Table 106) and 2.5c (Table 107) form a more complete, slightly coarser textured toposequence. Little differences existed between the use of the 2.5b and 2.5c soils. The 2.5a soils had a higher percentage of sod crops and slightly lower percentage of row crops than the more poorly drained 2.5c soils.

Slope differences were more important than drainage differences on the loamy soils. The total percentage of crop-

Table 101.--Land uses and percentage of SMG 1b in LRA 99.

Use	Acreage	Percent
Row Crops	33,054	32.4
Small Grains	14,959	14.7
Sod Crops	12,965	12.7
Idle	13,928	13.6
Fruit	1,125	1.1
All Cropland	76,031	74.5
Pasture	5,636	5.5
Forest	16,710	16.4
Other	3,709	3.6
TOTAL:	102,087	100.0

Table 102.--Land uses and percentage of SMG 1c in LRA 99.

Use	Acreage	Percent
Row Crops	53,207	47.4
Small Grains	14,964	13.3
Sod Crops	12,970	11.5
Idle	15,351	13.7
Fruit	0	0.0
All Cropland	96,492	85.9
Pasture	442	0.4
Forest	12,278	10.9
Other	3,103	2.8
TOTAL:	112,313	100.0

Table 103.--Land uses and percentage of SMG 1.5b in LRA 99.

Use	Acreage	Percent
Row Crops	145,412	52.4
Small Grains	55,301	19.9
Sod Crops	33,402	12.0
Idle	8,598	3.1
Fruit	153	0.1
All Cropland	242,866	87.5
Pasture	3,726	1.3
Forest	14,234	5.1
Other	16,594	6.0
TOTAL:	277,420	99.9

Table 104.--Land uses and percentage of SMG 1.5c in LRA 99.

Use	Acreage	Percent
Row Crops	194,520	44.1
Small Grains	92,036	20.9
Sod Crops	54,066	12.3
Idle	28,122	6.4
Fruit	195	0.1
All Cropland	368,939	83.6
Pasture	8,139	1.8
Forest	38,312	8.7
Other	25,796	5.8
TOTAL:	441,186	99.9

Table 105.--Land uses and percentage of slope classes in SMG 2.5a in LRA 99.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	41,314	36.7	11,546	25.2	0	0.0	55,467	32.9
Small Grains	25,187	22.4	10,222	22.3	0	0.0	37,499	22.2
Sod Crops	27,894	24.8	11,780	25.7	220	14.7	41,818	24.8
Idle	5,048	4.5	5,764	12.6	0	0.0	11,242	6.7
Fruit	427	0.4	214	0.5	0	0.0	1,495	0.9
All Cropland	99,870	88.8	39,526	86.3	220	14.7	147,521	87.4
Pasture	1,247	1.1	1,050	2.3	0	0.0	2,522	1.5
Forest	4,452	4.0	2,743	6.0	881	58.7	8,076	4.8
Other	6,857	6.1	2,486	5.4	399	26.6	10,588	6.3
TOTAL:	112,426	100.0	45,805	100.0	1,500	100.0	168,709	100.0

Slope Classes	C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%
Row Crops	2,382	28.7	225	33.3
Small Grains	2,090	25.2	0	0.0
Sod Crops	1,924	23.2	0	0.0
Idle	430	5.2	0	0.0
Fruit	854	10.3	0	0.0
All Cropland	7,680	92.5	225	33.3
Pasture	0	0.0	225	33.3
Forest	0	0.0	0	0.0
Other	621	7.5	225	33.3
TOTAL:	8,301	100.0	675	99.9

Table 106.--Land uses and percentage of SMG 2.5b in LRA 99.

Use	Acreage	Percent
Row Crops	212,126	39.3
Small Grains	133,584	24.7
Sod Crops	92,622	17.2
Idle	31,590	5.9
Fruit	1,447	0.3
All Cropland	471,369	87.3
Pasture	11,025	2.0
Forest	20,656	3.8
Other	36,737	6.8
TOTAL:	539,787	99.9

Table 107.--Land uses and percentage of SMG 2.5c in LRA 99.

Use	Acreage	Percent
Row Crops	199,437	40.9
Small Grains	101,975	20.9
Sod Crops	87,044	17.9
Idle	15,896	3.3
Fruit	236	tr.
All Cropland	404,588	83.0
Pasture	14,067	2.9
Forest	43,510	8.9
Other	25,048	5.1
TOTAL:	487,213	99.9

tr. = trace - less than 0.1

land is similar for the gentle and moderate slopes but the percentage of row crops declined by over 10 percent and idle cropland increased by about 8 percent between the gentle and moderate slopes. No significant acreage occurred on the steep slopes.

Table 108 and Table 109 present the land use for SMG's 3/2b and 4/2b, respectively. These groups differ chiefly in texture of the overlying material. SMG 3/2b has sandy loams over loams to silty clay loams and SMG 4/2b has loamy sands over loams to silty clay loams. Both are somewhat poorly drained. The 3/2b soils were more intensively used with 84.7 percent in farmland uses. The 4/2b soils had only 69.1 percent in farmland uses. Row crops were primarily responsible for this difference, accounting for 46.2 percent of the 3/2b soils and only 31.5 percent of the 4/2b soils. Forest land was more common on the 4/2b soils.

Soils in SMG 4b (Table 110) were used more similar to those in SMG 3/2b and finer, not SMG 4/2b. Each use differs by no more than a few percent between the 4b soils and the 3/2b soils.

Soils in the coarsest toposequence were the least intensively used. The uses of SMG 5b are presented in Table 111, and uses of 5c soils are presented in Table 112. Idle cropland accounted for a similar percentage of both SMG's and all other cropland and pasture uses were higher on the 5b soils than the 5c soils. Forest accounted for over two-thirds of the use of the 5c soils and only about half

Table 108.--Land uses and percentage of SMG 3/2b in LRA 99.

Use	Acreage	Percent
Row Crops	60,074	46.2
Small Grains	22,751	17.5
Sod Crops	15,767	12.1
Idle	10,175	7.8
Fruit	1,458	1.1
All Cropland	110,225	84.7
Pasture	1,495	1.1
Forest	10,188	7.8
Other	8,244	6.3
TOTAL:	130,153	99.9

Table 109.--Land uses and percentage of SMG 4/2b in LRA 99.

Use	Acreage	Percent
Row Crops	43,797	31.5
Small Grains	17,066	12.3
Sod Crops	24,253	17.5
Idle	10,530	7.6
Fruit	386	0.3
All Cropland	96,032	69.1
Pasture	5,752	4.1
Forest	27,697	19.9
Other	9,460	6.8
TOTAL:	138,942	99.9

Table 110.--Land uses and percentage of SMG 4b in LRA 99.

Use	Acreage	Percent
Row Crops	58,135	46.4
Small Grains	19,607	15.6
Sod Crops	14,183	11.3
Idle	12,114	9.7
Fruit	420	0.3
All Cropland	104,459	83.3
Pasture	2,962	2.4
Forest	12,660	10.1
Other	5,325	4.2
TOTAL:	125,405	100.0

of the use of the 5b soils.

SMG's 1b (Table 101), 1.5b (Table 103), 2.5b (Table 106), 4b (Table 110) and 5b (Table 111) form a lithosequence. All are somewhat poorly drained and on gentle slopes. The finest textured (1b) and the coarsest textured (5b) soils are the least intensively used for cropland. The 5b soils were 37.4 percent cropland and the 1b soils were 74.5 percent cropland. The 1.5b, 2.5b and 4b soils all had over 83 percent cropland uses occurring on them, with the 4b soils having the least percent cropland.

SMG's 1c (Table 102), 1.5c (Table 104), 2.5c (Table 107) and 5c (Table 112) form an incomplete poorly drained lithosequence. The coarse textured, poorly drained soils (5c) were least used for cropland. Note that the percentage of row crops and idle cropland decreased as the soils became coarser.

Potential Future Uses

About 73 percent of LRA 99 was used for cropland in 1967. This was true even though about 93 percent of the LRA was potentially good farmland or better. Table 113 and Table 114 present the uses that were made of the potentially prime and potentially good farmland, respectively. About 82 percent of the potentially prime and only 58 percent of the potentially good farmland was in cropland uses. If forest uses were changed to cropland uses, there would be 9.4 percent of the potentially prime and 31.9

Table 111.--Land uses and percentage of SMG 5b in LRA 99.

Use	Acreage	Percent
Row Crops	20,835	14.6
Small Grains	6,385	4.5
Sod Crops	9,554	6.7
Idle	16,215	11.4
Fruit	191	0.1
All Cropland	53,180	37.4
Pasture	4,539	3.2
Forest	70,160	49.3
Other	14,477	10.2
TOTAL:	142,357	100.1

Table 112.--Land uses and percentage of SMG 5c in LRA 99.

Use	Acreage	Percent
Row Crops	13,538	6.4
Small Grains	5,715	2.7
Sod Crops	7,675	3.6
Idle	24,401	11.5
Fruit	0	0.0
All Cropland	51,329	24.2
Pasture	1,212	0.6
Forest	144,516	68.0
Other	15,359	7.2
TOTAL:	212,416	100.0

Table 113.--Use of potentially prime farmland in LRA 99.

Use	Acreage	Percent
Row Crops	1,174,595	41.1
Small Grains	566,527	19.8
Sod Crops	425,536	14.9
Idle	165,791	5.8
Fruit	7,505	0.3
All Cropland	2,339,954	81.8
Pasture	68,576	2.4
Forest	268,791	9.4
Other	182,720	6.4
TOTAL:	2,860,041	100.0

Table 114.--Use of potentially good farmland in LRA 99.

Use	Acreage	Percent
Row Crops	263,225	24.9
Small Grains	113,852	10.8
Sod Crops	110,909	10.5
Idle	120,264	11.4
Fruit	3,693	0.3
All Cropland	611,943	58.0
Pasture	39,716	3.8
Forest	337,056	31.9
Other	66,570	6.3
TOTAL:	1,055,285	100.0

percent of the potentially good farmland that could be shifted into cropland uses.

In LRA 99, cropland uses were dominated by row crops and small grains. These two uses made up the majority of the cropland uses in the potentially prime and potentially good cropland. Recent trends in agricultural production indicate that these percentages will be even higher in the future.

LRA 111

Land Resource Area 111, the Indiana and Ohio Till Plain, is located in the southeast part of the Lower Peninsula (Figure 1). The total inventory acreage was 563,149 acres, which was 1.8 percent of the Michigan inventory acreage.

The area is characterized by undulating to rolling till plains. Three-fourths of the land was in agricultural production, with over 60 percent under the plow.

Soils

Table 115 lists the acreage included in each of the SMG's and it's percent of the LRA. Fine textured soils (SMG's beginning with a 1) accounted for 50.3 percent (283,337 acres) of the LRA. Medium textured soils (SMG's beginning with a 2 or a 3) accounted for 32.7 percent (184,085 acres) and coarse textured soils (SMG's beginning with a 4 or a 5) occupied 7.7 percent (42,997 acres). Alluvial soils, organic soils and non-soil materials occupied the remaining 9.4 percent of the LRA.

Well drained soils occurred on 48.7 percent (274,242 acres) of the LRA. Somewhat poorly drained soils occupied 22.3 percent (125,292 acres) and poorly and very poorly drained soils occupied 28.7 percent (161,326 acres). The remaining 0.4 percent (2,189 acres) was non-soil materials.

Slopes were dominantly flat with 80.5 percent (453,458

Table 115.--SMG's, their acreage, and percentage of LRA 111.

SMG	Acreage	Percent	SMG	Acreage	Percent
1a	1,870	0.4	4a	9,520	1.7
1b	20,846	3.7	4b	6,622	1.2
1c	26,037	4.6	4c	2,023	0.4
1.5a	126,429	22.5	4/1b	674	0.1
1.5b	70,106	12.5	4/2a	6,395	1.1
1.5c	38,049	6.8	4/2c	592	0.1
2.5a	54,086	9.6	5a	4,147	0.7
2.5b	13,455	2.4	5b	3,268	0.6
2.5b-s	2,038	0.4	5c	225	tr.
2.5c	21,502	3.8	5/2a	790	0.1
2.5c-s	12,013	2.1	5/2b	1,798	0.3
3a	25,081	4.5	5.3a	6,943	1.2
3b	790	0.1	L-2a	2,765	0.5
3c	3,069	0.6	L-2bc	19,667	3.5
3/1c	5,742	1.0	L-Mc	790	0.1
3/2a	15,892	2.8	Mc	12,382	2.2
3/2b	4,708	0.8	M/1c	1,028	0.2
3/5a	20,323	3.6	M/3c	8,470	1.5
3/5b	987	0.2	M/4c	197	tr.
3/5c	4,398	0.8	M/mc	5,142	0.9
			Misc.	2,189	0.4
			TOTAL:	563,049	100.1

tr. = trace - less than 0.1

acres) of the LRA having slopes less than 6 percent. Slope classes C and D (6 to 18 percent slopes) accounted for 18.2 percent (102,256 acres). The remaining 1.3 percent (7,334 acres) was occupied by soils with slopes in excess of 18 percent.

Potentially prime farmland accounted for 65.0 percent (365,809 acres) of the LRA. Good farmland accounted for 28.3 percent (159,273 acres). These figures indicate that LRA 111 is particularly well suited to farmland uses.

Land Use

Cropland accounted for 77.2 percent of LRA 111, Table 1. This includes 48.3 percent row crops, 14.2 percent small grains, 10.4 percent sod crops, 3.2 percent idle and 1.1 percent fruit crops. Pasture accounted for 5.3 percent, forestry 13.4 percent and other uses occupied the remaining 4.0 percent.

Soils and Land Use

Appendix I lists the acreage of each land use in each SMU in LRA 111.

The only SMG's that exceeded 5 percent of the LRA were 1.5a, 1.5b, 1.5c and 2.5a. This indicates that the parent material for the soils of LRA 111 is moderately fine and medium textured.

Table 116 breaks down SMG 1.5a by slope class and land use. Row crops occupied 51.7 percent of the SMG and was a similar percentage for all slope and erosion classes up to 18 percent slopes. There was no cropland on slopes greater than 18 percent. Small grains decreased in percentage as slopes increased, and sod crops increased in percentage from the gentle to the steep slopes.

Idle cropland was insignificant on the less eroded slopes. On the eroded moderate slopes 13.2 percent was idle.

Pasture and forest uses increased as slope increased and were the only uses on the steep slopes.

Comparing Tables 116, 117 and 118 (SMG's 1.5a, 1.5b and 1.5c, respectively) shows that the somewhat poorly drained soils are the most intensively used of the three drainage classes. Row crops (on gentle slopes) increased from about 50 percent on the well drained and poorly drained soils to about 60 percent on the somewhat poorly drained soils. This pattern repeated for sod crops and total cropland. This is likely the result of the problems of excess water in the poorly drained soils and the mid-summer droughtiness on the well drained soils.

Table 119 breaks down SMG 2.5a by slope class and land use. Note the differences between the uses of these soils and the 1.5a soils. Total cropland is similar on the gentle slopes of the two soils but the type of cropland differs. The 1.5a soils were used more intensively, with row crops and grains in the greatest percentages. The

Table 116.--Land uses and percentage of slope classes in SMG 1.5a in LRA 111.

Slope Classes	AB		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	44,002	53.7	18,180	51.0	0	0.0	65,415	51.7
Small Grains	17,524	21.4	3,779	10.6	0	0.0	22,126	17.5
Sod Crops	5,687	6.9	3,778	10.6	0	0.0	9,915	7.8
Idle	1,573	1.9	197	0.6	0	0.0	2,669	2.1
Fruit	225	0.3	205	0.6	0	0.0	430	0.3
All Cropland	69,011	84.2	26,139	73.3	0	0.0	100,555	79.5
Pasture	2,449	3.0	3,875	10.9	790	50.0	8,101	6.4
Forest	7,448	9.1	4,641	13.0	790	50.0	13,496	10.7
Other	3,058	3.7	1,023	2.9	0	0.0	4,053	3.2
TOTAL:	81,966	100.0	35,678	100.0	1,580	100.0	126,429	100.0

Slope Classes	C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%
Row Crops	3,233	47.5	0	0.0
Small Grains	823	12.1	0	0.0
Sod Crops	450	6.6	0	0.0
Idle	899	13.2	0	0.0
Fruit	0	0.0	0	0.0
All Cropland	5,405	79.4	0	0.0
Pasture	592	8.7	395	100.0
Forest	617	9.1	0	0.0
Other	197	2.9	0	0.0
TOTAL:	6,811	100.0	395	100.0

Table 117.--Land uses and percentage of SMG 1.5b in LRA 111.

Use	Acreage	Percent
Row Crops	44,641	63.7
Small Grains	12,795	18.3
Sod Crops	5,835	8.3
Idle	0	0.0
Fruit	206	0.3
All Cropland	63,477	90.5
Pasture	426	0.6
Forest	4,747	6.8
Other	1,457	2.1
TOTAL:	70,106	100.0

Table 118.--Land uses and percentage of SMG 1.5c in LRA 111.

Use	Acreage	Percent
Row Crops	19,054	50.1
Small Grains	5,188	13.6
Sod Crops	2,300	6.0
Idle	1,349	3.5
Fruit	0	0.0
All Cropland	27,891	73.3
Pasture	1,709	4.5
Forest	7,212	19.0
Other	1,237	3.3
TOTAL:	38,049	100.0

Table 119.--Land uses and percentage of slope classes in SMG 2.5a in LRA 111.

Slope Classes	A+B		C+D		E+		TOTAL	
Use	Acreage	%	Acreage	%	Acreage	%	Acreage	%
Row Crops	9,729	42.3	9,253	34.8	0	0.0	19,404	35.9
Small Grains	2,114	9.2	3,085	11.6	0	0.0	5,199	9.6
Sod Crops	5,467	23.8	4,593	17.3	197	14.3	11,156	20.6
Idle	1,607	7.0	1.015	3.8	0	0.0	2,622	4.8
Fruit	0	0.0	0	0.0	0	0.0	0	0.0
All Cropland	18,917	82.3	17,946	67.4	197	14.3	38,381	71.0
Pasture	1,031	4.5	1,637	6.2	395	28.6	4,643	8.6
Forest	1,832	8.0	5,212	19.6	790	57.2	7,834	14.5
Other	1,212	5.3	1,818	6.8	0	0.0	3,227	6.0
TOTAL:	22,992	100.0	26,613	100.0	1,382	100.0	54,087	100.0

Slope Classes	C+D eroded		E+ eroded	
Use	Acreage	%	Acreage	%
Row Crops	422	22.1	0	0.0
Small Grains	0	0.0	0	0.0
Sod Crops	899	47.0	0	0.0
Idle	0	0.0	0	0.0
Fruit	0	0.0	0	0.0
All Cropland	1,321	69.1	0	0.0
Pasture	395	20.6	1,185	100.0
Forest	0	0.0	0	0.0
Other	197	10.3	0	0.0
TOTAL:	1,913	100.0	1,185	100.0

2.5a soils were not used as intensively as the 1.5a soils. Note that sod crops and idle cropland were relatively more important on the 2.5a soils than on the 1.5a soils.

Potential Future Uses

About 77 percent of LRA 111 was used for cropland in 1967, even though about 93 percent of the land was potentially good farmland or better. Table 120 and Table 121 presents the uses that were made of the potentially prime and potentially good farmland, respectively. Note that 82.1 percent of the potentially prime farmland was used for cropland. About 11 percent could be shifted from forest uses to cropland uses as demand for agricultural products increases. The potentially good farmland was less intensively used. Only 71.5 percent was in cropland in 1967. About 17 percent could be shifted from forest uses into cropland uses should there be a need.

Note that row crops and small grains made up the majority of the cropland uses of both the potentially prime and the potentially good farmland. With recent shifts from general farming in the state to cash crop production even more of the suitable farmland is likely to be shifted over to these two uses.

Table 120.--Use of potentially prime farmland in LRA 111.

Use	Acreage	Percent
Row Crops	177,050	51.7
Small Grains	57,910	16.9
Sod Crops	33,233	9.7
Idle	9,915	2.9
Fruit	2,899	0.8
All Cropland	281,007	82.1
Pasture	11,433	3.3
Forest	37,890	11.1
Other	11,974	3.5
TOTAL:	342,304	100.0

Table 121.--Use of potentially good farmland in LRA 111.

Use	Acreage	Percent
Row Crops	81,333	44,5
Small Grains	19,346	10.6
Sod Crops	22,254	12.2
Idle	6,175	3.4
Fruit	1,479	0.8
All Cropland	130,587	71.5
Pasture	12,530	6.9
Forest	31,716	17.4
Other	7,931	4.3
TOTAL:	182,764	100.1

5. CONCLUSIONS

Four major soil formation factors affect the distribution of land use. These are climate, natural drainage, slope and parent material. The general effect of each of these factors is outlined below:

1. climate- two soil climates, mesic and frigid, are recognized in Michigan (Soil Survey Staff, 1975). LRA's 97, 98, 99 and 111 are contained in the mesic regime, and LRA's 92, 93, 94N, 94S and 96 are within the frigid temperature regime. On a broad scale forestry was the dominant land use on the soils with a frigid temperature in 1967, particularly in the Upper Peninsula, and cropland was the dominant land use on soils with a mesic temperature. In LRA 94S the intensity of land use is intermediate between those to the north and those to the south on comparable SMU's.

2. natural drainage- three major drainage classes are recognized in the mineral soils, well drained, somewhat poorly drained and poorly drained. In the northern LRA's the well drained soils were more intensively used for cropland. In southern Michigan on the finer textured soils, the somewhat poorly drained soils were slightly more intensively used than the well drained and the poorly drained soils. The medium and coarser textured soils were

slightly more commonly cropped when well drained.

3. slope- almost universally within Michigan as slope increased, particularly above 18 percent, the percentage of cropland and it's component uses decreased and the percentage of forest land increased. In some cases the moderate slopes (6 to 18 percent) were slightly more intensively used than the gentle slopes. This was commonly the case for sod crops and small grains.

4. parent material- within a LRA parent material was usually of equal importance as slope in determining the distribution of land use. As a general rule as parent material became coarser textured (SMG's beginning with a 4 or a 5) the intensity of cropland use declined and forestry became the dominant land use.

These four factors, in combination with each other and man's activities (population distribution, proximity to market areas etc.) determine the distribution patterns found in land use.

Another major conclusion resulting from this study is the realization that large amounts of potentially usable farmland is in non-agricultural uses. Significant acreages of each of Michigan's LRA's could be put into agricultural production. Increased demands for agricultural products by an expanding world population may force these forested or idle lands into production.

Tables 122 and 123 present the 1967 use of the potentially prime and potentially good farmland, respectively, in Michigan. Note the significant acreage of both types of land that is

forested or idle and could be put into agricultural production to help feed the future state and world population.

Table 122.--Use of potentially prime farmland in Michigan.

Use	Acreage	Percent
Row Crops	2,560,840	26.2
Small Grains	1,523,926	15.6
Sod Crops	1,731,497	17.7
Idle	681,742	7.0
Fruit	113,321	1.2
All Cropland	6,611,326	67.6
Pasture	386,823	4.0
Forest	2,247,203	23.0
Other	533,531	5.5
TOTAL:	9,778,890	100.1

Table 123.--Use of potentially good farmland in Michigan.

Use	Acreage	Percent
Row Crops	950,425	7.8
Small Grains	636,224	5.3
Sod Crops	1,041,039	8.6
Idle	790,330	6.5
Fruit	110,937	0.9
All Cropland	3,528,955	29.1
Pasture	594,578	4.9
Forest	7,401,602	61.1
Other	586,383	4.8
TOTAL:	12,111,518	99.9

6. NEED FOR FURTHER RESEARCH

The 1967 CNI still holds a wealth of information that could be obtained with minimal effort. Conservation treatment needs are not discussed here but could, and should be evaluated by SMU. The relationships between LCU's and SMU's would also be of general interest. The 1967 CNI could also be useful in more quantitative descriptions of the compositions of the map units of general soil maps of Michigan.

Another major future use of the 1967 CNI is for land use trend projections. The CNI offers one of the most extensive soil and land use inventory ever made. Data exists for 1958 and 1967 and is at the time of this writing being prepared for 1981 or 1982. Even though some definitions and sampling procedures are inconsistent throughout the three sample years, a great amount of land use trend information can be obtained by comparisons between them.

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APPENDICES

APPENDIX A

Land Use By SMU In LRA 92

Miscellaneous	
A 0,1,2	
Forest	230
0a	
A 0,1,2	
Forest	3,443
B 0,1,2	
Small Grains	2,875
Sod Crops	853
Idle	2,295
Pasture	2,000
Forest	20,689
Other Rural	230
TOTAL:	28,942
C 0,1,2	
Small Grains	208
Sod Crops	208
Idle	230
Pasture	459
Forest	3,672
TOTAL:	4,777
D 0,1,2	
Small Grains	230
Idle	230
Pasture	689
Forest	2,754
TOTAL:	3,903
E 0,1,2	
Forest	7,115
F 0,1,2	
Idle	459
Pasture	230
Forest	24,787
TOTAL:	25,476
F 3,4,5	
Forest	689
GROUP TOTAL:	74,340
0b	
A 0,1,2	
Sod Crops	459
Forest	16,295
TOTAL:	16,754
B 0,1,2	
Small Grains	918
Sod Crops	1,148
Pasture	918
Forest	12,164
TOTAL:	15,148
GROUP TOTAL:	31,902
1c	
A 0,1,2	
Small Grains	623
Sod Crops	853
Forest	5,191
GROUP TOTAL:	6,667
1,5a	
B 0,1,2	
Row Crops	230
Small Grains	3,089
Sod Crops	459
Idle	459
Pasture	918
Forest	84,529
Other Rural	230
TOTAL:	89,914
C 0,1,2	
Pasture	230
Forest	15,836
TOTAL:	16,066
D 0,1,2	
Forest	4,590
E 0,1,2	
Forest	7,574
F 0,1,2	
Forest	7,574
GROUP TOTAL:	125,716
1,5c	
A 0,1,2	
Forest	3,443
2,5a-a	
B 0,1,2	
Pasture	415
Forest	4,831
TOTAL:	5,246
C 0,1,2	
Forest	2,066
D 0,1,2	
Sod Crops	831

APPENDIX A (cont'd.)

Pasture	208
Forest	1,290
TOTAL:	2,329
GROUP TOTAL:	9,640
2,5a-s	
A 0,1,2	
Small Grains	1,148
Forest	2,295
TOTAL:	3,443
B 0,1,2	
Small Grains	918
Pasture	230
Forest	2,066
TOTAL:	3,214
F 0,1,2	
Forest	16,023
F 3,4,5	
Forest	230
GROUP TOTAL:	22,908
2,5b-s	
B 0,1,2	
Small Grains	428
Forest	5,462
GROUP TOTAL:	5,890
2,5c-s	
A 0,1,2	
Forest	4,494
3a-a	
B 0,1,2	
Small Grains	1,454
Sod Crops	1,284
Idle	1,070
Forest	43,317
Other Rural	1,088
TOTAL:	48,213
C 0,1,2	
Small Grains	2,077
Sod Crops	208
Pasture	623
Forest	14,910
Other Rural	415
TOTAL:	18,233
D 0,1,2	
Pasture	208
Forest	8,394
TOTAL:	8,602
E 0,1,2	
Forest	459
F 0,1,2	
Forest	4,569
Other Rural	208
TOTAL:	4,777
GROUP TOTAL:	80,284
3b	
B 0,1,2	
Forest	1,607
3b-a	
A 0,1,2	
Forest	415
B 0,1,2	
Forest	2,700
GROUP TOTAL:	3,115
3c	
A 0,1,2	
Small Grains	208
3/1b	
B 0,1,2	
Pasture	459
3/1c	
A 0,1,2	
Pasture	230
Forest	918
GROUP TOTAL:	1,148
3/2b	
B 0,1,2	
Idle	689
Forest	4,131
GROUP TOTAL:	4,820
3/Ra	
B 0,1,2	
Forest	2,754
C 0,1,2	
Pasture	459
Forest	1,607
D 0,1,2	
Forest	1,148
E 0,1,2	
Forest	2,984

APPENDIX A (cont'd.)

F 0,1,2	
Forest	13,311
GROUP TOTAL:	22,262
4a	
AB 0,1,2	
Idle	459
Forest	11,459
Other Rural	230
TOTAL:	12,148
C 0,1,2	
Pasture	459
D 0,1,2	
Sod Crops	230
Idle	230
Forest	4,131
TOTAL:	4,591
E 0,1,2	
Idle	918
Forest	2,295
Other Rural	459
TOTAL:	3,672
F 0,1,2	
Idle	689
Forest	4,864
Other Rural	459
TOTAL:	6,012
GROUP TOTAL:	26,880
4a-a	
AB 0,1,2	
Small Grains	208
Forest	3,764
TOTAL:	3,972
C 0,1,2	
Small Grains	415
Forest	7,892
Other Rural	208
TOTAL:	8,515
E 0,1,2	
Forest	6,421
GROUP TOTAL:	18,908
4b	
AB 0,1,2	
Forest	9,433
4/1b	
AB 0,1,2	
Idle	918
Forest	2,066
GROUP TOTAL:	2,984
4/2b	
AB 0,1,2	
Sod Crops	689
Forest	2,754
Other Rural	459
GROUP TOTAL:	3,902
4/2b-s	
AB 0,1,2	
Idle	230
Forest	3,441
GROUP TOTAL:	3,672
4/2c	
AB 0,1,2	
Forest	459
5a	
AB 0,1,2	
Forest	2,667
C 0,1,2	
Forest	16,615
GROUP TOTAL:	19,282
5b	
AB 0,1,2	
Sod Crops	230
Forest	918
Other Rural	230
TOTAL:	1,377
5/2a	
C 0,1,2	
Forest	230
5/2b	
AB 0,1,2	
Forest	11,934
5,3a	
AB 0,1,2	
Small Grains	856
Sod Crops	459
Idle	918
Pasture	459
Forest	53,675
TOTAL:	56,367
C 0,1,2	
Small Grains	629
Forest	7,491
Other Rural	208
TOTAL:	8,328

APPENDIX A (cont'd.)

D 0,1,2	
Forest	4,217
GROUP TOTAL:	68,912
L-2c	
A 0,1,2	
Forest	24,525
Other Rural	459
GROUP TOTAL:	24,984
MC-a	
A 0,1,2	
Forest	230
M/1c	
A 0,1,2	
Forest	642
M/4c	
A 0,1,2	
Forest	5,137
M/Mc	
A 0,1,2	
Other Rural	208
Ga	
B 0,1,2	
Sod Crops	459
Pasture	230
Fruit	230
Forest	2,066
Other Rural	230
TOTAL:	3,215
C 0,1,2	
Forest	2,295
D 0,1,2	
Forest	1,607
Other Rural	230
TOTAL:	1,837
E 0,1,2	
Forest	689
F 0,1,2	
Forest	689
GROUP TOTAL:	8,721
LRA TOTAL:	607,026

APPENDIX B

Land Use By SMU In LRA 93

Miscellaneous	
A 0,1,2	
Forest	1,312
Other Rural	1,869
GROUP TOTAL:	3,182
0a	
B 0,1,2	
Small Grains	2,140
Sod Crops	1,362
Idle	2,197
Pasture	673
Forest	18,069
Other Rural	654
TOTAL:	25,095
C 0,1,2	
Sod Crops	214
Small Grains	918
Pasture	459
Forest	4,820
TOTAL:	6,411
D 0,1,2	
Idle	459
Forest	1,821
TOTAL:	2,280
GROUP TOTAL:	33,785
0b	
A 0,1,2	
Sod Crops	1,148
Idle	636
Forest	22,336
TOTAL:	24,120
B 0,1,2	
Small Grains	214
Sod Crops	655
Pasture	230
Forest	230
TOTAL:	1,329
GROUP TOTAL:	25,447
1a	
C 0,1,2	
Forest	691
1c	
A 0,1,2	
Pasture	230
Forest	4,361
GROUP TOTAL:	4,590
1.5a	
A 0,1,2	
Forest	224
B 0,1,2	
Small Grains	1,070
Idle	1,151
Pasture	2,096
Forest	19,093
TOTAL:	23,410
C 0,1,2	
Forest	23,268
Other Rural	428
TOTAL:	23,696
E 0,1,2	
Forest	4,839
F 0,1,2	
Forest	7,827
GROUP TOTAL:	59,996
1.5b	
A 0,1,2	
Forest	238
1.5c	
A 0,1,2	
Small Grains	428
Pasture	850
Forest	2,347
GROUP TOTAL:	3,625
2.5a	
A 0,1,2	
Row Crops	713
Small Grains	713
Sod Crops	238
Idle	1,663
Forest	475
Other Rural	238
TOTAL:	4,040
B 0,1,2	
Row Crops	3,801
Small Grains	27,747
Sod Crops	18,874
Idle	8,039
Pasture	4,724

APPENDIX B (cont'd.)

Forest	97,675
Other Rural	5,446
TOTAL:	166,306
C 0,1,2	
Row Crops	2,138
Small Grains	11,293
Sod Crops	2,851
Idle	3,088
Pasture	3,691
Forest	50,174
Other Rural	3,330
TOTAL:	76,565
D 0,1,2	
Small Grains	1,901
Sod Crops	3,326
Idle	475
Pasture	1,901
Forest	11,348
TOTAL:	18,951
E 0,1,2	
Small Grains	475
Sod Crops	238
Idle	238
Pasture	475
Forest	6,890
Other Rural	238
TOTAL:	8,554
F 0,1,2	
Sod Crops	238
Pasture	238
Forest	2,613
Other Rural	208
TOTAL:	3,297
GROUP TOTAL:	277,710

2,5a-s

B 0,1,2	
Small Grains	1,038
Sod Crops	1,038
Forest	6,318
TOTAL:	8,394
C 0,1,2	
Sod Crops	831
Pasture	415
Forest	23,051
TOTAL:	24,297
GROUP TOTAL:	32,692

2,5a-s

A 0,1,2	
Forest	230
B 0,1,2	
Small Grains	656
Sod Crops	2,637
Idle	461
Forest	12,628
TOTAL:	16,382
C 0,1,2	
Forest	4,378
D 0,1,2	
Small Grains	214
Forest	675
TOTAL:	889
F 0,1,2	
Forest	4,839
GROUP TOTAL:	26,718

2,5b

A 0,1,2	
Row Crops	475
Small Grains	3,365
Sod Crops	2,547
Idle	922
Pasture	1,525
Forest	77,742
TOTAL:	86,576
B 0,1,2	
Small Grains	420
Sod Crops	2,183
Idle	630
Forest	28,191
TOTAL:	31,424
GROUP TOTAL:	118,000

2,5b-s

B 0,1,2	
Forest	5,751

2,5c

A 0,1,2	
Small Grains	713
Sod Crops	3,343
Idle	658
Pasture	2,657
Forest	83,639
Other Rural	448
TOTAL:	91,458
B 0,1,2	
Forest	238
GROUP TOTAL:	91,695

2,5c-s

A 0,1,2	
Idle	230
Forest	3,525
GROUP TOTAL:	3,755

APPENDIX B (cont'd.)

3a

A 0,1,2

Forest	2,520

B 0,1,2

Row Crops	713
Small Grains	7,592
Sod Crops	14,194
Idle	1,986
Pasture	1,942
Fruit	210
Forest	69,774
Other Rural	1,337
TOTAL:	97,748

C 0,1,2

Row Crops	238
Small Grains	2,420
Sod Crops	2,390
Idle	1,580
Pasture	238
Forest	31,289
Other Rural	1,155
TOTAL:	39,310

D 0,1,2

Small Grains	221
Sod Crops	892
Idle	1,326
Pasture	713
Forest	19,522
TOTAL:	22,674

E 0,1,2

Idle	210
Forest	6,645
TOTAL:	6,855

E 3,4,5

Other Rural	221

F 0,1,2

Forest	2,872
GROUP TOTAL:	172,196

3a-a

A 0,1,2

Row Crops	389
Sod Crops	214
Forest	29,915
Other Rural	623
TOTAL:	31,141

B 0,1,2

Row Crops	1,678
Small Grains	17,751
Sod Crops	11,004
Idle	9,828
Pasture	7,988
Forest	477,956
Other Rural	13,156
TOTAL:	539,361

C 0,1,2

Small Grains	1,691
Sod Crops	3,898
Idle	5,816
Pasture	15,619
Forest	306,418
Other Rural	7,504
TOTAL:	340,946

D 0,1,2

Small Grains	428
Sod Crops	213
Idle	1,439
Pasture	1,633
Forest	243,127
Other Rural	3,276
TOTAL:	250,116

E 0,1,2

Sod Crops	224
Idle	221
Pasture	454
Forest	18,317
TOTAL:	19,216

F 0,1,2

Pasture	642
Forest	13,970
Other Rural	208
TOTAL:	14,820
GROUP TOTAL:	1,195,600

3b

A 0,1,2

Idle	691
Forest	37,092
TOTAL:	37,783

B 0,1,2

Small Grains	1,613
Pasture	461
Forest	7,133
TOTAL:	9,207
GROUP TOTAL:	46,990

3b-a

A 0,1,2

Small Grains	895
Sod Crops	642
Pasture	480
Forest	50,014
TOTAL:	52,031

APPENDIX B (cont'd.)

B 0,1,2	
Small Grains	831
Pasture	415
Forest	15,434
TOTAL:	16,680
GROUP TOTAL:	68,110

3c

A 0,1,2	
Small Grains	230
Idle	213
Pasture	691
Forest	55,603
Other Rural	1,269
TOTAL:	58,006
B 0,1,2	
Pasture	623
Forest	208
TOTAL:	831
GROUP TOTAL:	58,837

3/1a

C 0,1,2	
Pasture	230

3/2a

B 0,1,2	
Sod Crops	208
Forest	4,139
GROUP TOTAL:	4,347

3/2b

A 0,1,2	
Forest	922

3/5a

A 0,1,2	
Sod Crops	475
Pasture	238
TOTAL:	713
B 0,1,2	
Idle	238
Forest	1,098
TOTAL:	1,336
C 0,1,2	
Forest	4,257
GROUP TOTAL:	6,305

3/5a-a

A 0,1,2	
Small Grains	1,277
Idle	959
Pasture	959
Forest	24,647
Other Rural	2,341
TOTAL:	30,183
B 0,1,2	
Sod Crops	851
Forest	20,701
TOTAL:	21,552
C 0,1,2	
Sod Crops	1,064
Pasture	1,490
Forest	10,089
TOTAL:	12,643
D 0,1,2	
Forest	8,177
Other Rural	221
TOTAL:	8,398
E 0,1,2	
Forest	221
GROUP TOTAL:	72,997

3/5b

A 0,1,2	
Small Grains	238
Sod Crops	713
Idle	713
Pasture	238
Forest	2,376
TOTAL:	4,278
B 0,1,2	
Small Grains	238
Pasture	238
Forest	1,171
TOTAL:	1,647
GROUP TOTAL:	5,923

3/Ra

A 0,1,2	
Small Grains	238
Row Crops	238
Idle	713
Forest	3,711
Other Rural	415
TOTAL:	5,315
B 0,1,2	
Small Grains	210
Sod Crops	5,724
Idle	655
Pasture	1,146
Forest	76,725
Other Rural	418
TOTAL:	84,888

APPENDIX B (cont'd.)

C 0,1,2

Small Grains	224
Sod Crops	224
Idle	668
Pasture	221
Forest	13,876
TOTAL:	15,213

D 0,1,2

Sod Crops	224
Idle	461
Pasture	221
Forest	14,629
TOTAL:	15,535

E 0,1,2

Sod Crops	224
Pasture	224
Forest	52,967
Other Rural	1,547
TOTAL:	54,962

F 0,1,2

Forest	7,698
GROUP TOTAL:	183,608

3/Rbc

A 0,1,2

Forest	2,480

B 0,1,2

Forest	4,696
GROUP TOTAL:	7,176

4a

AB 0,1,2

Row Crops	2,301
Small Grains	4,856
Sod Crops	4,653
Idle	3,022
Pasture	3,226
Forest	93,412
Other Rural	2,283
TOTAL:	113,753

AB 3,4,5

Small Grains	221
Idle	475
TOTAL:	696

C 0,1,2

Row Crops	713
Small Grains	1,310
Sod Crops	1,301
Idle	2,226
Pasture	442
Forest	60,998
Other Rural	900
TOTAL:	67,890

D 0,1,2

Small Grains	1,342
Sod Crops	224
Idle	900
Pasture	1,342
Forest	28,220
TOTAL:	32,028

E 0,1,2

Small Grains	221
Idle	442
Forest	12,081
Other Rural	459
TOTAL:	13,203

F 0,1,2

Pasture	442
Forest	7,799
Other Rural	221
TOTAL:	8,462
GROUP TOTAL:	236,031

4a-a

AB 0,1,2

Row Crops	2,892
Small Grains	5,215
Sod Crops	1,520
Idle	668
Pasture	1,869
Forest	127,021
Other Rural	4,354
TOTAL:	143,539

C 0,1,2

Row Crops	831
Small Grains	2,285
Sod Crops	442
Idle	1,102
Pasture	208
Forest	55,032
Other Rural	885
TOTAL:	60,785

D 0,1,2

Idle	224
Pasture	208
Forest	21,775
TOTAL:	22,207

E 0,1,2

Small Grains	208
Pasture	415
Forest	4,349
TOTAL:	4,972

F 0,1,2

Sod Crops	461

APPENDIX B (cont'd.)

Forest	10,041
TOTAL:	10,502
GROUP TOTAL:	242,005

4b

AB 0,1,2

Row Crops	208
Small Grains	1,781
Sod Crops	445
Idle	210
Pasture	663
Forest	25,807
Other Rural	238
GROUP TOTAL:	29,352

4c

AB 0,1,2

Small Grains	1,306
Sod Crops	1,380
Idle	475
Pasture	1,748
Forest	28,692
Other Rural	831
GROUP TOTAL:	34,431

4/1b

AB 0,1,2

Forest	3,570

4/2a

AB 0,1,2

Idle	213
Forest	8,050
Other Rural	213
TOTAL:	8,476

C 0,1,2

Forest	1,988

D 0,1,2

Forest	884
GROUP TOTAL:	11,347

4/2b

AB 0,1,2

Small Grains	238
Forest	8,595
GROUP TOTAL:	8,833

4/2b-s

AB 0,1,2

Small Grains	1,188
Pasture	238
Forest	713
GROUP TOTAL:	2,138

4/2c

AB 0,1,2

Forest	4,155

5a

AB 0,1,2

Row Crops	3,309
Small Grains	1,509
Sod Crops	4,859
Idle	1,715
Pasture	623
Forest	128,201
Other Rural	2,781
TOTAL:	142,997

C 0,1,2

Row Crops	475
Small Grains	445
Idle	415
Pasture	208
Forest	120,618
Other Rural	1,079
TOTAL:	123,290

D 0,1,2

Row Crops	1,439
Small Grains	238
Sod Crops	3,346
Idle	459
Pasture	1,674
Forest	35,206
Other Rural	2,317
TOTAL:	44,679

E 0,1,2

Idle	459
Forest	11,211
TOTAL:	11,670

F 0,1,2

Forest	2,341
GROUP TOTAL:	324,928

5a-h

AB 0,1,2

Forest	1,321

C 0,1,2

Forest	2,023
Other Rural	1,038
TOTAL:	3,061

D 0,1,2

Forest	224
GROUP TOTAL:	4,605

APPENDIX B (cont'd.)

5b

AB 0,1,2

Sod Crops	210
Forest	47,995
Other Rural	210
GROUP TOTAL:	48,415

5b-h

AB 0,1,2

Forest	10,349

5c

AB 0,1,2

Sod Crops	210
Forest	56,100
Other Rural	840
GROUP TOTAL:	57,150

5c-a

AB 0,1,2

Pasture	207
Forest	14,846
GROUP TOTAL:	15,054

5/2a

AB 0,1,2

Small Grains	238

C 0,1,2

Small Grains	238
GROUP TOTAL:	475

5/2b

AB 0,1,2

Small Grains	467
Forest	3,221
GROUP TOTAL:	3,688

5,3a

AB 0,1,2

Row Crops	2,128
Small Grains	422
Sod Crops	238
Idle	221
Pasture	218
Forest	52,446
Other Rural	3,122
TOTAL:	58,785

C 0,1,2

Row Crops	1,915
Small Grains	238
Idle	884
Pasture	210
Forest	88,346
Other Rural	442
TOTAL:	92,035

D 0,1,2

Forest	134,338

E 0,1,2

Forest	426

F 0,1,2

Forest	663
GROUP TOTAL:	286,245

5,7a

AB 0,1,2

Small Grains	238
Pasture	719
Forest	84,358
Other Rural	6,713
TOTAL:	92,028

C 0,1,2

Forest	238
GROUP TOTAL:	92,265

L-2a

A 0,1,2

Row Crops	208
Small Grains	428
Sod Crops	3,115
Pasture	415
Forest	1,263
Other Rural	629
GROUP TOTAL:	6,059

L-2c

A 0,1,2

Small Grains	428
Sod Crops	623
Idle	461
Forest	39,417
Other Rural	438
TOTAL:	41,367

B 0,1,2

Sod Crops	214
Pasture	214
Forest	230
TOTAL:	658
GROUP TOTAL:	42,024

L-4a

A 0,1,2

Small Grains	428

APPENDIX B (cont'd.)

Other Rural	214
GROUP TOTAL:	642
L-4c	
A 0,1,2	
Small Grains	230
Sod Crops	230
Pasture	1,070
Forest	26,186
Other Rural	221
GROUP TOTAL:	27,938
L-mc	
A 0,1,2	
Small Grains	238
Pasture	447
Forest	9,212
GROUP TOTAL:	9,896
Mc	
A 0,1,2	
Small Grains	238
Sod Crops	1,613
Pasture	2,957
Forest	554,333
Other Rural	8,300
TOTAL:	567,441
B 0,1,2	
Forest	208
E 0,1,2	
Forest	428
GROUP TOTAL:	568,075
Mc-a	
A 0,1,2	
Idle	1,439
Forest	91,864
Other Rural	240
TOTAL:	93,543
D 0,1,2	
Forest	240
GROUP TOTAL:	93,782
M/1c	
A 0,1,2	
Forest	4,920
M/3c	
A 0,1,2	
Row Crops	208
Small Grains	440
Pasture	1,728
Forest	110,331
Other Rural	1,843
TOTAL:	114,550
B 0,1,2	
Forest	2,865
GROUP TOTAL:	117,416
M/4c	
A 0,1,2	
Small Grains	238
Idle	238
Forest	99,250
Other Rural	415
GROUP TOTAL:	100,141
Ga	
A 0,1,2	
Forest	1,114
B 0,1,2	
Small Grains	922
Sod Crops	230
Pasture	691
Forest	15,394
Other Rural	615
TOTAL:	17,852
C 0,1,2	
Small Grains	230
Sod Crops	1,383
Pasture	230
Forest	7,846
TOTAL:	9,689
D 0,1,2	
Forest	4,316
E 0,1,2	
Forest	461
F 0,1,2	
Forest	475
GROUP TOTAL:	33,907
G/Ra	
B 0,1,2	
Forest	7,302
C 0,1,2	
Forest	7,494
D 0,1,2	
Forest	12,106
E 0,1,2	
Forest	3,651
F 0,1,2	
Forest	4,612
GROUP TOTAL:	35,166

APPENDIX B (cont'd.)

Ra	
A 0,1,2	
Idle	630
Pasture	210
Forest	21,462
TOTAL:	22,302
B 0,1,2	
Sod Crops	224
Idle	868
Pasture	1,077
Forest	5,342
TOTAL:	7,511
C 0,1,2	
Pasture	224
Forest	447
TOTAL:	671
D 0,1,2	
Sod Crops	224
Pasture	224
Forest	447
TOTAL:	895
GROUP TOTAL:	31,377
Rbc	
A 0,1,2	
Sod Crops	224
Idle	224
Pasture	840
Forest	33,481
Other Rural	210
TOTAL:	34,979
B 0,1,2	
Forest	2,460
GROUP TOTAL:	37,438
LRA TOTAL:	5,035,532

APPENDIX C

Land Use By SMU In LRA 94N

Miscellaneous	
A 0,1,2	
Sod Crops	630
Forest	27,002
Other Rural	4,772
GROUP TOTAL:	32,404
0a	
A 0,1,2	
Sod Crops	232
Idle	232
Pasture	232
Forest	232
Other Rural	232
TOTAL:	1,160
B 0,1,2	
Small Grains	7,347
Sod Crops	3,176
Idle	3,665
Pasture	4,402
Forest	6,016
Other Rural	687
TOTAL:	25,293
C 0,1,2	
Small Grains	232
Sod Crops	232
Forest	6,104
Other Rural	223
TOTAL:	6,791
D 0,1,2	
Small Grains	232
Sod Crops	695
Pasture	232
Forest	463
Other Rural	463
TOTAL:	2,085
E 0,1,2	
Pasture	463
Forest	2,317
Other Rural	232
TOTAL:	3,012
F 0,1,2	
Small Grains	232
Pasture	927
Forest	2,549
Other Rural	232
TOTAL:	3,940
GROUP TOTAL:	42,280

0b	
A 0,1,2	
Small Grains	40,541
Sod Crops	6,698
Idle	9,268
Pasture	3,707
Forest	28,037
Other Rural	3,244
TOTAL:	91,495
B 0,1,2	
Small Grains	232
Sod Crops	695
Idle	927
Pasture	695
Forest	6,343
TOTAL:	8,892
GROUP TOTAL:	100,387
0c	
A 0,1,2	
Small Grains	1,803
Idle	232
Forest	5,873
Other Rural	687
GROUP TOTAL:	8,594
1a	
A 0,1,2	
Forest	1,126
B 0,1,2	
Forest	901
GROUP TOTAL:	2,026
1b	
A 0,1,2	
Forest	1,340
B 0,1,2	
Forest	670
GROUP TOTAL:	2,010
1c	
A 0,1,2	
Small Grains	16,780
Sod Crops	1,090
Idle	7,630
Pasture	232
Forest	30,204
Other Rural	2,781
TOTAL:	58,717

APPENDIX C (cont'd.)

B 0,1,2	
Forest	1,854
GROUP TOTAL:	60,569
1,5a	
B 0,1,2	
Sod Crops	2,550
Idle	425
Forest	1,275
TOTAL:	4,250
C 0,1,2	
Sod Crops	425
Idle	1,275
Forest	893
TOTAL:	2,593
GROUP TOTAL:	6,843
1,5b	
A 0,1,2	
Sod Crops	1,260
Pasture	1,050
TOTAL:	2,310
B 0,1,2	
Small Grains	450
GROUP TOTAL:	2,760
2,5a	
B 0,1,2	
Sod Crops	1,340
Idle	210
Forest	2,010
TOTAL:	3,560
C 0,1,2	
Small Grains	447
Sod Crops	2,233
Idle	670
Forest	2,235
TOTAL:	5,585
F 0,1,2	
Other Rural	2,085
GROUP TOTAL:	11,228
2,5a-s	
B 0,1,2	
Sod Crops	223
Forest	3,353
TOTAL:	3,576
C 0,1,2	
Forest	7,654
Other Rural	232
TOTAL:	7,886
D 0,1,2	
Forest	7,204
E 0,1,2	
Forest	1,126
GROUP TOTAL:	19,792
2,5b	
A 0,1,2	
Pasture	210
Forest	1,890
TOTAL:	2,100
B 0,1,2	
Sod Crops	1,260
Idle	210
Other Rural	210
TOTAL:	1,680
GROUP TOTAL:	3,780
2,5b-s	
A 0,1,2	
Sod Crops	420
Idle	630
Forest	1,940
TOTAL:	2,990
B 0,1,2	
Forest	28,909
Other Rural	463
TOTAL:	29,372
GROUP TOTAL:	32,362
2,5c	
A 0,1,2	
Sod Crops	223
Forest	4,612
GROUP TOTAL:	4,835
2,5c-c	
A 0,1,2	
Sod Crops	630
2,5c-s	
A 0,1,2	
Sod Crops	425
Idle	212
Forest	17,165
GROUP TOTAL:	17,802
3a	
B 0,1,2	
Sod Crops	210
Idle	1,116
Pasture	447

APPENDIX C (cont'd.)

Forest	35,246
Other Rural	223
TOTAL:	37,242
C 0,1,2	
Forest	13,207
Other Rural	1,622
TOTAL:	14,829
D 0,1,2	
Forest	3,939
E 0,1,2	
Forest	2,549
F 0,1,2	
Forest	927
GROUP TOTAL:	59,486

3a-a

B 0,1,2	
Row Crops	224
Idle	1,342
Pasture	447
Forest	7,867
TOTAL:	9,880
C 0,1,2	
Small Grains	232
Pasture	1,342
Forest	10,750
Other Rural	232
TOTAL:	12,556
D 0,1,2	
Forest	4,025
E 0,1,2	
Forest	894
F 0,1,2	
Forest	224
GROUP TOTAL:	27,578

3b-a

A 0,1,2	
Small Grains	425
Pasture	637
Forest	1,331
TOTAL:	2,393
B 0,1,2	
Forest	5,132
Other Rural	212
TOTAL:	5,344
GROUP TOTAL:	7,738

3c

A 0,1,2	
Forest	671

3/1a

B 0,1,2	
Forest	1,854

3/1b

A 0,1,2	
Small Grains	463
Sod Crops	695
Idle	232
Forest	3,012
TOTAL:	4,402
B 0,1,2	
Idle	232
Forest	232
TOTAL:	464
GROUP TOTAL:	4,866

3/1c

A 0,1,2	
Idle	927
Forest	33,097
Other Rural	927
TOTAL:	34,951
B 0,1,2	
Small Grains	232
GROUP TOTAL:	35,182

3/Ra

A 0,1,2	
Sod Crops	420
Pasture	210
Forest	447
TOTAL:	1,077
B 0,1,2	
Small Grains	212
Sod Crops	1,055
Idle	8,697
Pasture	1,084
Forest	16,086
Other Rural	1,106
TOTAL:	28,240
C 0,1,2	
Forest	1,262
F 0,1,2	
Forest	3,131
GROUP TOTAL:	33,710

4a

AB 0,1,2	
Small Grains	449
Sod Crops	13,230
Idle	5,671

APPENDIX C (cont'd.)

Pasture	212
Forest	39,858
Other Rural	1,306
TOTAL:	60,726
C 0,1,2	
Sod Crops	901
Idle	649
Forest	30,508
Other Rural	224
TOTAL:	32,282
C 3,4,5	
Sod Crops	637
Idle	225
Pasture	212
Forest	212
TOTAL:	1,286
D 0,1,2	
Forest	14,228
D 3,4,5	
Forest	450
E 0,1,2	
Forest	7,046
E 3,4,5	
Forest	225
Other Rural	225
TOTAL:	450
F 0,1,2	
Forest	7,276
GROUP TOTAL:	123,745
4b	
AB 0,1,2	
Sod Crops	212
Pasture	212
Forest	12,320
GROUP TOTAL:	12,745
4c	
AB 0,1,2	
Forest	8,343
4/1a	
AB 0,1,2	
Forest	232
C 0,1,2	
Forest	2,317
GROUP TOTAL:	3,549
4/1b	
AB 0,1,2	
Small Grains	463
Forest	7,998
GROUP TOTAL:	8,461
4/1c	
AB 0,1,2	
Idle	232
Forest	4,171
GROUP TOTAL:	4,402
4/2a	
AB 0,1,2	
Forest	6,283
C 0,1,2	
Forest	1,352
D 0,1,2	
Forest	897
GROUP TOTAL:	8,532
4/2b	
AB 0,1,2	
Forest	652
Other Rural	463
GROUP TOTAL:	1,115
4/2c	
AB 0,1,2	
Idle	223
Forest	8,891
GROUP TOTAL:	9,115
4/Ra	
AB 0,1,2	
Forest	1,978
5a	
AB 0,1,2	
Sod Crops	4,075
Idle	2,613
Pasture	438
Forest	305,222
Other Rural	2,705
TOTAL:	315,053
C 0,1,2	
Idle	863
Pasture	1,351
Forest	159,616
Other Rural	1,622
TOTAL:	163,452
D 0,1,2	
Forest	58,011
Other Rural	232
TOTAL:	58,243
E 0,1,2	
Forest	42,322

APPENDIX C (cont'd.)

F 0,1,2	
Forest	8,287
F 3,4,5	
Forest	2,454
GROUP TOTAL:	589,809
5a-h	
AB 0,1,2	
Idle	670
Forest	50,595
TOTAL:	51,265
C 0,1,2	
Forest	31,707
Other Rural	447
TOTAL:	32,154
C 3,4,5	
Forest	232
D 0,1,2	
Forest	20,264
D 3,4,5	
Idle	225
Forest	1,123
TOTAL:	1,348
E 0,1,2	
Forest	14,768
F 0,1,2	
Forest	3,618
GROUP TOTAL:	123,647
5b	
AB 0,1,2	
Sod Crops	457
Forest	144,487
Other Rural	682
GROUP TOTAL:	145,626
5b-h	
AB 0,1,2	
Sod Crops	1,485
Idle	224
Forest	36,091
Other Rural	212
GROUP TOTAL:	38,013
5c	
AB 0,1,2	
Forest	38,081
5c-a	
AB 0,1,2	
Forest	103,535
Other Rural	2,169
GROUP TOTAL:	105,705
5/2a	
AB 0,1,2	
Sod Crops	210
5/2b	
AB 0,1,2	
Small Grains	232
Forest	2,549
GROUP TOTAL:	2,781
5,3a	
AB 0,1,2	
Sod Crops	420
Idle	223
Forest	58,783
Other Rural	695
TOTAL:	60,121
C 0,1,2	
Idle	210
Forest	53,126
TOTAL:	53,336
D 0,1,2	
Forest	10,361
E 0,1,2	
Forest	11,472
F 0,1,2	
Forest	15,404
GROUP TOTAL:	150,694
L-2c	
A 0,1,2	
Sod Crops	1,680
Pasture	652
Forest	2,223
GROUP TOTAL:	4,555
L-4a	
A 0,1,2	
Forest	670
Other Rural	670
GROUP TOTAL:	1,340
L-4c	
A 0,1,2	
Forest	25,332
Other Rural	232
GROUP TOTAL:	25,563

APPENDIX C (cont'd.)

L-Mc	
A 0,1,2	
Forest	20,955
Mc	
A 0,1,2	
Forest	318,538
Other Rural	2,471
TOTAL:	321,009
B 0,1,2	
Forest	463
C 0,1,2	
Forest	447
GROUP TOTAL:	321,920
Mc-a	
A 0,1,2	
Forest	173,918
Other Rural	886
GROUP TOTAL:	174,804
M/1c	
A 0,1,2	
Forest	1,126
M/1c-a	
A 0,1,2	
Forest	13,516
M/3c	
A 0,1,2	
Forest	10,654
M/4c	
A 0,1,2	
Idle	450
Forest	157,384
Other Rural	436
GROUP TOTAL:	158,270
M/Mc	
A 0,1,2	
Small Grains	232
Forest	463
GROUP TOTAL:	695
Ga	
A 0,1,2	
Other Rural	232
B 0,1,2	
Forest	12,289
C 0,1,2	
Idle	447
Forest	4,553
Other Rural	447
TOTAL:	5,447
D 0,1,2	
Forest	232
Other Rural	3,012
TOTAL:	3,244
GROUP TOTAL:	21,211
Gbc	
A 0,1,2	
Forest	13,907
B 0,1,2	
Sod Crops	893
Idle	223
Forest	44,505
Other Rural	232
TOTAL:	45,853
GROUP TOTAL:	59,759
Ra	
A 0,1,2	
Sod Crops	210
Idle	223
Pasture	420
Forest	6,576
TOTAL:	7,429
B 0,1,2	
Row Crops	212
Small Grains	850
Sod Crops	4,027
Idle	1,318
Pasture	1,680
Forest	36,930
Other Rural	436
TOTAL:	45,453
C 0,1,2	
Pasture	840
Forest	4,106
TOTAL:	4,946
D 0,1,2	
Other Rural	212
GROUP TOTAL:	58,041
Rbc	
A 0,1,2	
Sod Crops	212
Idle	210
Forest	16,100
GROUP TOTAL:	16,522
LRA TOTAL:	2,783,893

APPENDIX D

Land Use By SMU In LRA 94S

Miscellaneous	
A 0,1,2	
Forest	1,019
Other Rural	2,225
TOTAL:	3,244
B 0,1,2	
Other Rural	619
B 3,4,5	
Other Rural	1,472
C 3,4,5	
Forest	394
D 0,1,2	
Pasture	626
Forest	626
TOTAL:	1,252
E 0,1,2	
Idle	209
E 3,4,5	
Other Rural	184
Undetermined	56,645
GROUP TOTAL:	64,019
0a	
B 0,1,2	
Sod Crops	216
Forest	216
GROUP TOTAL:	432
0b	
A 0,1,2	
Pasture	1,942
Forest	1,428
TOTAL:	3,370
B 0,1,2	
Sod Crops	1,079
GROUP TOTAL:	4,448
0c	
A 0,1,2	
Row Crops	591
Small Grains	2,464
Sod Crops	5,057
Idle	621
Pasture	4,929
Forest	12,436
Other Rural	216
TOTAL:	26,314
B 0,1,2	
Forest	426
GROUP TOTAL:	26,739
1a	
A 0,1,2	
Row Crops	2,094
Small Grains	5,893
Sod Crops	8,882
Idle	4,494
Pasture	5,783
Fruit	639
Forest	6,355
Other Rural	859
TOTAL:	34,999
B 0,1,2	
Row Crops	3,490
Small Grains	14,134
Sod Crops	2,724
Idle	1,246
Pasture	3,171
Fruit	198
Forest	5,460
Other Rural	1,039
TOTAL:	31,462
C 0,1,2	
Small Grains	1,246
Sod Crops	417
Idle	213
Pasture	614
Forest	2,790
TOTAL:	5,280
C 3,4,5	
Small Grains	198
D 0,1,2	
Sod Crops	211
Pasture	213
Forest	198
TOTAL:	622
E 0,1,2	
Forest	863
F 0,1,2	
Pasture	216
Forest	432
Other Rural	204
TOTAL:	852
GROUP TOTAL:	74,274

APPENDIX D (cont'd.)

1b

A 0,1,2

Row Crops	4,872
Small Grains	8,757
Sod Crops	15,097
Idle	2,536
Pasture	4,207
Forest	26,165
Other Rural	1,252
TOTAL:	62,886

B 0,1,2

Row Crops	1,577
Small Grains	2,010
Sod Crops	3,192
Idle	204
Pasture	4,668
Fruit	197
Forest	13,676
Other Rural	413
TOTAL:	25,937

C 0,1,2

Forest	856
GROUP TOTAL:	89,680

1c

A 0,1,2

Row Crops	211
Sod Crops	3,480
Idle	640
Forest	4,713
Other Rural	204
GROUP TOTAL:	9,248

1,5a

A 0,1,2

Row Crops	871
Small Grains	2,225
Sod Crops	2,982
Idle	1,911
Pasture	441
Forest	1,720
Other Rural	862
TOTAL:	11,012

B 0,1,2

Row Crops	23,959
Small Grains	24,623
Sod Crops	53,941
Idle	15,456
Pasture	28,189
Forest	38,451
Other Rural	6,970
TOTAL:	191,589

C 0,1,2

Row Crops	5,278
Small Grains	6,311
Sod Crops	26,955
Idle	10,837
Pasture	16,531
Forest	15,845
Other Rural	2,749
TOTAL:	84,506

C 3,4,5

Row Crops	600
Small Grains	1,207
Sod Crops	600
Idle	1,035
Pasture	200
Forest	207
Other Rural	200
TOTAL:	4,049

D 0,1,2

Row Crops	1,047
Small Grains	1,271
Sod Crops	8,616
Idle	1,472
Pasture	7,240
Forest	16,364
Other Rural	1,495
TOTAL:	37,505

D 3,4,5

Row Crops	614
Small Grains	226
Sod Crops	1,279
Idle	624
Pasture	1,473
Forest	648
Other Rural	437
TOTAL:	5,301

E 0,1,2

Small Grains	408
Sod Crops	1,059
Pasture	2,299
Forest	2,952
TOTAL:	6,718

E 3,4,5

Row Crops	429
Small Grains	431
Sod Crops	433
Idle	200
Pasture	3,957
Forest	1,043
Other Rural	200
TOTAL:	6,693

APPENDIX D (cont'd.)

F 0,1,2	
Sod Crops	212
Idle	416
Pasture	1,483
Forest	6,995
Other Rural	419
TOTAL:	9,525
F 3,4,5	
Row Crops	212
Small Grains	212
Sod Crops	212
Pasture	212
Forest	1,656
TOTAL:	2,504
GROUP TOTAL:	359,400

1,5b	
A 0,1,2	
Row Crops	9,895
Small Grains	5,797
Sod Crops	12,229
Idle	5,184
Pasture	3,823
Forest	12,641
Other Rural	423
TOTAL:	49,992
B 0,1,2	
Row Crops	4,467
Small Grains	7,040
Sod Crops	17,970
Idle	4,930
Pasture	9,084
Forest	15,267
Other Rural	1,288
TOTAL:	60,046
C 0,1,2	
Small Grains	212
Pasture	423
TOTAL:	635
GROUP TOTAL:	110,673

1,5c	
A 0,1,2	
Row Crops	3,772
Small Grains	3,093
Sod Crops	6,352
Idle	3,486
Pasture	3,691
Forest	24,310
Other Rural	862
TOTAL:	45,566
B 0,1,2	
Row Crops	207
Small Grains	218
Sod Crops	2,366
Idle	626
Pasture	1,485
Forest	2,553
Other Rural	429
TOTAL:	7,884
GROUP TOTAL:	53,450

2,5a	
A 0,1,2	
Small Grains	420
Sod Crops	1,892
Pasture	1,269
Forest	1,247
TOTAL:	4,828
B 0,1,2	
Row Crops	1,687
Small Grains	10,122
Sod Crops	33,168
Idle	8,343
Pasture	15,778
Fruit	2,469
Forest	38,812
Other Rural	2,518
TOTAL:	112,897
C 0,1,2	
Small Grains	1,894
Sod Crops	8,845
Idle	3,092
Pasture	4,599
Fruit	418
Forest	22,463
Other Rural	213
TOTAL:	41,524
D 0,1,2	
Sod Crops	2,109
Idle	603
Pasture	2,070
Forest	12,581
Other Rural	1,031
TOTAL:	18,394
D 3,4,5	
Other Rural	213
E 0,1,2	
Small Grains	212
Sod Crops	213
Pasture	632
Forest	8,855
TOTAL:	9,912

APPENDIX D (cont'd.)

F 0,1,2	
Pasture	408
Forest	605
TOTAL:	1,013
GROUP TOTAL:	188,779
2.5a-s	
A 0,1,2	
Row Crops	204
Idle	619
Forest	418
TOTAL:	1,241
B 0,1,2	
Row Crops	408
Small Grains	612
Sod Crops	1,622
Idle	408
Pasture	209
Forest	614
Other Rural	197
TOTAL:	4,070
C 0,1,2	
Sod Crops	1,476
Pasture	418
Forest	413
Other Rural	204
TOTAL:	2,511
D 0,1,2	
Small Grains	204
Idle	216
Forest	216
TOTAL:	636
D 3,4,5	
Sod Crops	216
E 0,1,2	
Forest	626
E 3,4,5	
Forest	418
F 0,1,2	
Other Rural	612
GROUP TOTAL:	10,327
2.5b	
A 0,1,2	
Row Crops	1,017
Small Grains	3,457
Sod Crops	1,469
Idle	417
Pasture	2,299
Forest	9,104
Other Rural	209
TOTAL:	17,972
B 0,1,2	
Sod Crops	1,452
Idle	830
Pasture	418
Forest	5,297
Other Rural	410
TOTAL:	8,407
GROUP TOTAL:	26,378
2.5b-s	
A 0,1,2	
Row Crops	2,030
Small Grains	1,668
Sod Crops	2,731
Idle	204
Pasture	2,661
Forest	4,180
Other Rural	204
TOTAL:	13,678
B 0,1,2	
Sod Crops	1,409
Idle	811
Pasture	1,409
Forest	2,760
TOTAL:	6,389
GROUP TOTAL:	20,068
2.5b-cs	
B 0,1,2	
Sod Crops	216
2.5c	
A 0,1,2	
Row Crops	1,464
Small Grains	1,031
Sod Crops	4,382
Idle	1,040
Pasture	4,405
Forest	37,884
Other Rural	630
TOTAL:	50,836
B 0,1,2	
Sod Crops	420
Pasture	835
Forest	2,085
Other Rural	211
TOTAL:	3,551
GROUP TOTAL:	54,387
2.5c-c	
A 0,1,2	
Row Crops	217

APPENDIX D (cont'd.)

Sod Crops	435
Forest	2,174
Other Rural	217
GROUP TOTAL:	3,044

2.5c-s

A 0,1,2

Row Crops	652
Sod Crops	840
Idle	403
Pasture	1,016
Forest	5,836
Other Rural	430
GROUP TOTAL:	9,178

3a

A 0,1,2

Row Crops	638
Small Grains	837
Sod Crops	638
Idle	591
Pasture	209
Fruit	208
Forest	3,146
TOTAL:	6,267

B 0,1,2

Row Crops	13,828
Small Grains	9,452
Sod Crops	25,629
Idle	11,771
Pasture	8,957
Fruit	2,429
Forest	68,727
Other Rural	3,885
TOTAL:	114,678

B 3,4,5

Sod Crops	209
Idle	635
Pasture	200
Forest	209
TOTAL:	1,253

C 0,1,2

Row Crops	6,490
Small Grains	3,501
Sod Crops	18,154
Idle	7,885
Pasture	8,308
Fruit	4,180
Forest	75,732
Other Rural	2,258
TOTAL:	126,508

C 3,4,5

Row Crops	207
Idle	212
Pasture	833
Forest	630
Other Rural	212
TOTAL:	2,094

D 0,1,2

Row Crops	216
Small Grains	213
Sod Crops	3,828
Idle	1,672
Pasture	1,462
Forest	34,245
Other Rural	811
TOTAL:	42,447

D 3,4,5

Sod Crops	1,490
Pasture	1,058
TOTAL:	2,548

E 0,1,2

Row Crops	207
Small Grains	216
Sod Crops	2,747
Idle	829
Pasture	1,242
Forest	14,707
Other Rural	418
TOTAL:	20,366

E 3,4,5

Pasture	811

F 0,1,2

Forest	4,431
Other Rural	215
TOTAL:	4,646

F 3,4,5

Forest	212
GROUP TOTAL:	351,827

3a-a

C 0,1,2

Idle	216

3b

A 0,1,2

Row Crops	204
Small Grains	218
Sod Crops	1,916
Idle	216
Forest	1,682
TOTAL:	4,236

APPENDIX D (cont'd.)

B 0,1,2	
Row Crops	414
Small Grains	1,073
Sod Crops	207
Idle	199
Pasture	858
Forest	2,895
Other Rural	212
TOTAL:	5,858
GROUP TOTAL:	10,095
3b-s	
A 0,1,2	
Row Crops	207
Small Grains	217
Sod Crops	1,474
Idle	197
Forest	1,047
TOTAL:	3,142
B 0,1,2	
Sod Crops	868
Pasture	828
Other Rural	217
TOTAL:	1,913
GROUP TOTAL:	5,057
3c	
A 0,1,2	
Sod Crops	1,305
Idle	216
Pasture	216
Forest	3,250
TOTAL:	4,987
B 0,1,2	
Forest	640
GROUP TOTAL:	5,626
3c-s	
A 0,1,2	
Row Crops	226
Small Grains	216
Sod Crops	1,318
Idle	619
Pasture	443
Forest	3,973
TOTAL:	6,795
B 0,1,2	
Pasture	647
GROUP TOTAL:	7,441
3/1a	
B 0,1,2	
Forest	1,269
C 0,1,2	
Sod Crops	204
Idle	213
Forest	213
TOTAL:	630
GROUP TOTAL:	1,899
3/1b	
A 0,1,2	
Forest	1,355
B 0,1,2	
Pasture	224
GROUP TOTAL:	1,579
3/1c	
A 0,1,2	
Row Crops	414
Small Grains	1,247
Sod Crops	2,722
Idle	2,483
Pasture	1,901
Forest	20,448
Other Rural	1,262
TOTAL:	30,477
B 0,1,2	
Row Crops	224
Sod Crops	847
Idle	408
Pasture	211
Forest	836
TOTAL:	2,526
GROUP TOTAL:	33,003
3/2a	
A 0,1,2	
Row Crops	626
Sod Crops	2,950
Forest	634
Other Rural	422
TOTAL:	4,632
B 0,1,2	
Row Crops	212
Small Grains	394
Sod Crops	5,603
Idle	3,280
Pasture	1,574
Forest	1,509
Other Rural	635
TOTAL:	13,207
C 0,1,2	
Row Crops	404
Small Grains	419
Sod Crops	1,586

APPENDIX D (cont'd.)

Idle	424
Pasture	418
Forest	1,927
Other Rural	404
TOTAL:	5,582
D 0,1,2	
Idle	626
Pasture	209
Forest	630
TOTAL:	1,465
GROUP TOTAL:	24,884
3/2b	
A 0,1,2	
Row Crops	847
Small Grains	1,242
Sod Crops	903
Idle	207
Pasture	207
Forest	1,024
TOTAL:	4,430
B 0,1,2	
Row Crops	1,991
Small Grains	621
Sod Crops	1,188
Idle	1,535
Pasture	659
Forest	1,026
TOTAL:	7,020
B 3,4,5	
Small Grains	226
GROUP TOTAL:	11,675
3/2c	
A 0,1,2	
Row Crops	400
Small Grains	211
Sod Crops	854
Idle	200
Forest	2,509
TOTAL:	4,174
B 0,1,2	
Row Crops	209
Sod Crops	209
Pasture	209
Forest	209
TOTAL:	836
GROUP TOTAL:	5,008
3/5a	
A 0,1,2	
Row Crops	845
Small Grains	1,273
Sod Crops	3,299
Idle	634
Forest	1,273
TOTAL:	7,324
B 0,1,2	
Row Crops	1,638
Small Grains	2,655
Sod Crops	2,553
Idle	2,105
Pasture	2,331
Forest	7,036
Other Rural	432
TOTAL:	18,750
C 0,1,2	
Row Crops	448
Small Grains	448
Sod Crops	1,120
Forest	2,890
TOTAL:	4,906
D 0,1,2	
Idle	418
Pasture	212
Forest	2,061
TOTAL:	2,691
D 3,4,5	
Sod Crops	209
Pasture	423
TOTAL:	632
E 0,1,2	
Pasture	423
Forest	803
TOTAL:	1,226
F 0,1,2	
Forest	432
GROUP TOTAL:	35,959
3/5a-a	
A 0,1,2	
Idle	224
Forest	1,266
TOTAL:	1,490
C 0,1,2	
Row Crops	209
GROUP TOTAL:	1,699
3/5b	
A 0,1,2	
Sod Crops	224
Forest	2,623
Other Rural	408
TOTAL:	3,255

APPENDIX D (cont'd.)

B 0,1,2	
Small Grains	212
Sod Crops	212
Forest	211
TOTAL:	635
GROUP TOTAL:	3,889
3/Ra	
A 0,1,2	
Pasture	1,253
Fruit	212
Forest	6,977
TOTAL:	8,442
B 0,1,2	
Pasture	1,044
Forest	3,758
Other Rural	209
TOTAL:	5,011
C 0,1,2	
Pasture	418
D 0,1,2	
Pasture	418
Forest	209
TOTAL:	627
GROUP TOTAL:	14,496
4a	
AB 0,1,2	
Row Crops	20,673
Small Grains	26,096
Sod Crops	65,474
Idle	44,768
Pasture	24,860
Fruit	2,449
Forest	214,586
Other Rural	20,319
TOTAL:	419,225
AB 3,4,5	
Forest	199
C 0,1,2	
Row Crops	5,355
Small Grains	8,611
Sod Crops	31,551
Idle	17,695
Pasture	12,951
Fruit	430
Forest	99,521
Other Rural	6,620
TOTAL:	182,734
C 3,4,5	
Row Crops	835
Small Grains	630
Sod Crops	1,625
Idle	635
Pasture	1,818
Forest	3,087
TOTAL:	8,630
D 0,1,2	
Row Crops	860
Small Grains	1,958
Sod Crops	10,866
Idle	7,154
Pasture	9,140
Fruit	1,001
Forest	84,900
Other Rural	2,337
TOTAL:	118,216
D 3,4,5	
Row Crops	213
Small Grains	1,310
Sod Crops	2,330
Idle	1,441
Pasture	6,134
Forest	2,789
Other Rural	207
TOTAL:	14,424
E 0,1,2	
Row Crops	212
Sod Crops	4,613
Idle	3,967
Pasture	4,652
Forest	79,316
Other Rural	4,088
TOTAL:	96,848
E 3,4,5	
Small Grains	434
Sod Crops	1,072
Pasture	216
Forest	4,922
TOTAL:	6,644
F 0,1,2	
Small Grains	218
Idle	421
Pasture	2,293
Forest	12,218
Other Rural	1,238
TOTAL:	16,388
F 3,4,5	
Sod Crops	425
GROUP TOTAL:	863,733
4a-a	
AB 0,1,2	
Row Crops	4,108

APPENDIX D (cont'd.)

Small Grains	1,282
Sod Crops	874
Idle	800
Pasture	648
Forest	1,938
Other Rural	211
TOTAL:	9,861
C 0,1,2	
Row Crops	212
Small Grains	423
Forest	218
TOTAL:	853
D 0,1,2	
Forest	216
E 0,1,2	
Forest	862
GROUP TOTAL:	11,792

4b

AB 0,1,2	
Row Crops	835
Small Grains	1,264
Sod Crops	6,311
Idle	3,737
Pasture	4,020
Forest	14,040
Other Rural	2,182
GROUP TOTAL:	32,388

4c

AB 0,1,2	
Row Crops	4,215
Small Grains	397
Sod Crops	5,461
Idle	9,688
Pasture	4,828
Forest	38,934
Other Rural	1,909
GROUP TOTAL:	65,432

4/1a

AB 0,1,2	
Row Crops	1,053
Idle	1,293
Pasture	421
Forest	2,765
Other Rural	226
TOTAL:	5,758
C 0,1,2	
Sod Crops	448
Pasture	1,089
Forest	224
TOTAL:	1,761
D 0,1,2	
Forest	209
E 0,1,2	
Forest	448
GROUP TOTAL:	8,176

4/1b

AB 0,1,2	
Row Crops	1,510
Small Grains	421
Sod Crops	4,526
Idle	427
Pasture	2,113
Forest	7,587
Other Rural	647
GROUP TOTAL:	17,231

4/1c

AB 0,1,2	
Row Crops	435
Small Grains	217
Sod Crops	1,712
Idle	677
Pasture	213
Forest	4,984
GROUP TOTAL:	8,238

4/2a

AB 0,1,2	
Row Crops	3,442
Small Grains	2,540
Sod Crops	13,352
Idle	5,973
Pasture	2,312
Fruit	414
Forest	42,966
Other Rural	4,449
TOTAL:	75,448
C 0,1,2	
Row Crops	1,254
Small Grains	1,055
Sod Crops	1,846
Idle	2,785
Pasture	3,656
Forest	21,546
Other Rural	408
TOTAL:	32,550
D 0,1,2	
Row Crops	197
Small Grains	216
Sod Crops	5,412
Idle	1,612
Pasture	1,435

APPENDIX D (cont'd.)

Forest	8,631
Other Rural	396
TOTAL:	17,899
D 3,4,5	
Forest	426
E 0,1,2	
Idle	417
Pasture	998
Forest	2,492
TOTAL:	3,907
E 3,4,5	
Forest	424
F 0,1,2	
Pasture	213
Forest	1,991
TOTAL:	2,204
F 3,4,5	
Forest	224
GROUP TOTAL:	133,084

4/2b

AB 0,1,2	
Row Crops	5,940
Small Grains	7,317
Sod Crops	16,683
Idle	16,305
Pasture	14,360
Forest	78,003
Other Rural	3,966
TOTAL:	142,574
AB 3,4,5	
Sod Crops	672
GROUP TOTAL:	143,246

4/2b-s

AB 0,1,2	
Row Crops	1,059
Small Grains	217
Sod Crops	426
Idle	890
Forest	1,722
Other Rural	226
GROUP TOTAL:	4,540

4/2c

AB 0,1,2	
Row Crops	1,746
Small Grains	2,147
Sod Crops	3,942
Idle	4,125
Pasture	2,384
Forest	24,367
Other Rural	1,757
GROUP TOTAL:	40,468

4/Ra

AB 0,1,2	
Forest	209

5a

AB 0,1,2	
Row Crops	23,287
Small Grains	5,206
Sod Crops	56,555
Idle	52,973
Pasture	26,833
Fruit	855
Forest	559,059
Other Rural	33,853
TOTAL:	758,621
AB 3,4,5	
Small Grains	634
Idle	1,254
Pasture	204
Forest	422
TOTAL:	2,514
C 0,1,2	
Row Crops	2,935
Small Grains	1,512
Sod Crops	15,633
Idle	26,694
Pasture	10,131
Fruit	663
Forest	174,415
Other Rural	6,148
TOTAL:	238,131
C 3,4,5	
Row Crops	626
Small Grains	216
Sod Crops	424
Idle	7,094
Pasture	830
Fruit	216
Forest	5,868
Other Rural	647
TOTAL:	15,921
D 0,1,2	
Row Crops	2,101
Small Grains	1,448
Sod Crops	4,955
Idle	8,937
Pasture	4,410
Forest	128,725
Other Rural	2,926
TOTAL:	153,502

APPENDIX D (cont'd.)

D 3,4,5	
Row Crops	198
Sod Crops	1,062
Idle	9,303
Pasture	431
Fruit	595
Forest	9,116
Other Rural	224
TOTAL:	20,929
E 0,1,2	
Row Crops	207
Sod Crops	1,076
Idle	3,777
Pasture	5,824
Forest	106,223
Other Rural	2,319
TOTAL:	119,426
E 3,4,5	
Sod Crops	631
Idle	431
Pasture	207
Forest	4,771
TOTAL:	6,040
F 0,1,2	
Idle	834
Forest	51,684
Other Rural	206
TOTAL:	52,724
F 3,4,5	
Idle	851
Forest	3,518
TOTAL:	4,369
GROUP TOTAL:	1,372,177

5a-h	
AB 0,1,2	
Forest	1,823
Other Rural	204
TOTAL:	2,027
C 0,1,2	
Forest	206
D 0,1,2	
Forest	673
Other Rural	224
TOTAL:	897
GROUP TOTAL:	3,131

5a-m	
AB 0,1,2	
Small Grains	414
Idle	1,035
Pasture	414
Forest	3,427
TOTAL:	5,290
C 0,1,2	
Pasture	207
Forest	207
TOTAL:	414
C 3,4,5	
Pasture	414
Forest	207
TOTAL:	621
GROUP TOTAL:	6,325

5b	
AB 0,1,2	
Row Crops	1,840
Small Grains	1,010
Sod Crops	820
Idle	8,829
Pasture	2,765
Fruit	1,388
Forest	123,367
Other Rural	3,617
GROUP TOTAL:	143,636

5b-h	
AB 0,1,2	
Row Crops	600
Small Grains	832
Sod Crops	5,856
Idle	1,789
Pasture	5,321
Forest	76,987
Other Rural	2,665
GROUP TOTAL:	94,050

5c	
AB 0,1,2	
Row Crops	1,407
Small Grains	1,002
Sod Crops	4,260
Idle	2,678
Pasture	9,695
Fruit	198
Forest	210,671
Other Rural	2,622
GROUP TOTAL:	232,532

5c-a	
AB 0,1,2	
Sod Crops	423
Idle	2,072
Pasture	7,832

APPENDIX D (cont'd.)

Forest	63,994
Other Rural	1,290
GROUP TOTAL:	75,611

5/2a

AB 0,1,2

Row Crops	2,492
Small Grains	1,453
Sod Crops	4,270
Idle	3,650
Pasture	1,738
Forest	53,747
Other Rural	2,318
TOTAL:	69,668

C 0,1,2

Row Crops	217
Sod Crops	1,089
Idle	423
Pasture	224
Forest	5,146
TOTAL:	7,099

D 0,1,2

Row Crops	216
Forest	4,464
TOTAL:	4,680

E 0,1,2

Forest	226
GROUP TOTAL:	81,674

5/2b

AB 0,1,2

Row Crops	812
Small Grains	2,080
Sod Crops	3,834
Idle	3,347
Pasture	6,175
Fruit	595
Forest	26,090
Other Rural	1,476
GROUP TOTAL:	44,409

5,3a

AB 0,1,2

Row Crops	834
Small Grains	2,076
Sod Crops	9,073
Idle	19,935
Pasture	16,688
Fruit	414
Forest	617,232
Other Rural	14,861
TOTAL:	681,113

AB 3,4,5

Sod Crops	1,058
Idle	847
Forest	632
Other Rural	609
TOTAL:	3,146

C 0,1,2

Row Crops	630
Small Grains	207
Sod Crops	2,470
Idle	6,693
Pasture	3,160
Fruit	208
Forest	236,108
Other Rural	6,829
TOTAL:	256,305

C 3,4,5

Sod Crops	612
Idle	420
Pasture	1,245
Fruit	991
Forest	7,435
Other Rural	224
TOTAL:	10,927

D 0,1,2

Idle	3,947
Pasture	844
Forest	80,220
Other Rural	3,794
TOTAL:	88,805

D 3,4,5

Idle	2,504
Forest	864
Other Rural	218
TOTAL:	3,586

E 0,1,2

Idle	209
Pasture	421
Forest	98,097
Other Rural	408
TOTAL:	99,135

E 3,4,5

Pasture	218
Fruit	207
Forest	1,682
TOTAL:	2,107

F 0,1,2

Forest	12,652

F 3,4,5

Forest	207
Other Rural	619
TOTAL:	826
GROUP TOTAL:	1,158,602

APPENDIX D (cont'd.)

5,7a	
AB 0,1,2	
Small Grains	216
Sod Crops	635
Idle	4,457
Pasture	2,942
Forest	381,340
Other Rural	8,897
TOTAL:	398,487
C 0,1,2	
Idle	851
Forest	66,527
Other Rural	1,341
TOTAL:	68,719
D 0,1,2	
Idle	212
Forest	29,319
Other Rural	395
TOTAL:	29,926
D 3,4,5	
Forest	184
E 0,1,2	
Pasture	1,470
Forest	18,479
Other Rural	552
TOTAL:	20,501
F 0,1,2	
Forest	1,446
F 3,4,5	
Idle	212
Forest	635
TOTAL:	847
GROUP TOTAL:	520,107
L-2c	
A 0,1,2	
Row Crops	414
Small Grains	836
Sod Crops	850
Idle	1,235
Pasture	5,334
Forest	55,540
Other Rural	1,046
TOTAL:	65,255
B 0,1,2	
Pasture	830
Fruit	397
Forest	2,019
TOTAL:	3,246
GROUP TOTAL:	68,500
L-4a	
A 0,1,2	
Forest	647
B 0,1,2	
Pasture	215
GROUP TOTAL:	862
L-4c	
A 0,1,2	
Small Grains	209
Pasture	1,883
Forest	6,076
TOTAL:	8,168
B 0,1,2	
Forest	626
GROUP TOTAL:	8,794
L-Mc	
A 0,1,2	
Row Crops	207
Idle	615
Pasture	200
Forest	41,673
Other Rural	830
GROUP TOTAL:	43,524
Mc	
A 0,1,2	
Row Crops	1,800
Small Grains	1,028
Sod Crops	2,664
Idle	3,910
Pasture	11,773
Forest	377,113
Other Rural	11,768
TOTAL:	410,056
B 0,1,2	
Forest	438
Other Rural	225
TOTAL:	663
C 0,1,2	
Forest	216
GROUP TOTAL:	410,934
Mc-a	
A 0,1,2	
Idle	426
Pasture	1,247
Forest	53,784
Other Rural	20,669
TOTAL:	76,126
C 0,1,2	
Forest	450

APPENDIX D (cont'd.)

GROUP TOTAL:	76,576
M/1c	
A 0,1,2	
Row Crops	1,200
Idle	452
Forest	6,568
Other Rural	200
GROUP TOTAL:	8,419
M/3c	
A 0,1,2	
Small Grains	400
Sod Crops	430
Forest	40,603
Other Rural	835
TOTAL:	42,268
B 0,1,2	
Pasture	448
GROUP TOTAL:	42,716
M/4c	
A 0,1,2	
Sod Crops	1,085
Idle	660
Pasture	835
Forest	110,465
Other Rural	4,360
TOTAL:	117,405
B 0,1,2	
Forest	442
GROUP TOTAL:	117,827
M/Mc	
A 0,1,2	
Idle	452
Pasture	452
Forest	1,545
GROUP TOTAL:	2,448
Ga	
A 0,1,2	
Pasture	215
Forest	12,046
TOTAL:	12,261
B 0,1,2	
Small Grains	212
Sod Crops	212
Idle	204
Forest	14,966
Other Rural	1,236
TOTAL:	16,830
C 0,1,2	
Sod Crops	850
Forest	2,101
Other Rural	823
TOTAL:	3,774
D 0,1,2	
Sod Crops	209
E 0,1,2	
Forest	1,044
F 0,1,2	
Row Crops	212
Forest	423
TOTAL:	635
F 3,4,5	
Sod Crops	213
GROUP TOTAL:	34,963
Gbc	
A 0,1,2	
Pasture	200
Forest	200
GROUP TOTAL:	400
Ra	
A 0,1,2	
Small Grains	635
Sod Crops	1,269
Idle	400
Pasture	835
Forest	13,084
Other Rural	623
TOTAL:	16,846
B 0,1,2	
Idle	204
Pasture	626
Fruit	204
Forest	20,671
Other Rural	825
TOTAL:	22,530
C 0,1,2	
Idle	209
Forest	2,083
Other Rural	413
TOTAL:	2,705
E 0,1,2	
Forest	626
GROUP TOTAL:	42,706
Rbc	
A 0,1,2	
Forest	12,522
LRA TOTAL:	7,551,075

APPENDIX E

Land Use By SMU In LRA 96

Miscellaneous	
A 0,1,2	
Small Grains	414
Pasture	414
TOTAL:	828
C 0,1,2	
Forest	1,377
Other Rural	619
TOTAL:	1,996
D 0,1,2	
Pasture	1,771
F 0,1,2	
Forest	626
F 3,4,5	
Idle	418
GROUP TOTAL:	5,639

0c	
A 0,1,2	
Row Crops	624
Small Grains	208
Other Rural	208
TOTAL:	1,040
B 0,1,2	
Row Crops	208
Small Grains	416
TOTAL:	624
GROUP TOTAL:	1,663

1a	
A 0,1,2	
Row Crops	832
Sod Crops	2,079
Forest	208
TOTAL:	3,119
B 0,1,2	
Row Crops	2,495
Small Grains	3,742
Sod Crops	3,534
Idle	208
Other Rural	416
TOTAL:	10,395
C 0,1,2	
Sod Crops	208
D 0,1,2	
Idle	208
GROUP TOTAL:	13,928

1b	
A 0,1,2	
Row Crops	416
Small Grains	208
Sod Crops	1,867
Idle	416
GROUP TOTAL:	2,906

1c	
A 0,1,2	
Small Grains	208
Pasture	655
Other Rural	218
GROUP TOTAL:	1,081

1,5a	
A 0,1,2	
Fruit	624
B 0,1,2	
Row Crops	2,752
Small Grains	2,361
Sod Crops	2,423
Idle	808
Pasture	645
Fruit	416
Forest	803
Other Rural	402
TOTAL:	10,610
C 0,1,2	
Small Grains	819
Sod Crops	644
Idle	208
Other Rural	623
TOTAL:	2,294
C 3,4,5	
Fruit	208
D 0,1,2	
Small Grains	218
Idle	416
Fruit	624
TOTAL:	1,258
E 0,1,2	
Sod Crops	218
Pasture	418
Forest	624
TOTAL:	1,260

APPENDIX E (cont'd.)

F 0,1,2	
Small Grains	218
Pasture	209
Forest	207
TOTAL:	634
F 3,4,5	
Row Crops	595
Forest	397
TOTAL:	992
GROUP TOTAL:	17,877

1,5b	
A 0,1,2	
Row Crops	655
Small Grains	655
Sod Crops	1,091
TOTAL:	2,401
B 0,1,2	
Row Crops	368
Small Grains	552
Sod Crops	368
TOTAL:	1,288
GROUP TOTAL:	3,689

1,5c	
A 0,1,2	
Row Crops	184
Sod Crops	418
Forest	2,497
Other Rural	418
TOTAL:	3,517
B 0,1,2	
Forest	218
GROUP TOTAL:	3,735

2,5a	
B 0,1,2	
Row Crops	1,242
Small Grains	828
Sod Crops	2,980
Idle	859
Forest	429
TOTAL:	6,338
C 0,1,2	
Sod Crops	2,983
Pasture	207
Fruit	1,574
Forest	859
Other Rural	644
TOTAL:	6,267

D 0,1,2	
Sod Crops	215
Other Rural	215
TOTAL:	430
E 0,1,2	
Pasture	1,862
Forest	429
TOTAL:	2,291
F 0,1,2	
Pasture	394
Forest	1,074
Other Rural	215
TOTAL:	1,683
F 3,4,5	
Forest	6,860
GROUP TOTAL:	23,868

2,5a-s	
B 0,1,2	
Sod Crops	215

2,5b	
A 0,1,2	
Small Grains	429
Sod Crops	215
Idle	828
Pasture	207
Forest	1,933
TOTAL:	3,612
B 0,1,2	
Small Grains	207
Sod Crops	1,718
Pasture	206
Forest	1,470
Other Rural	215
TOTAL:	3,816
GROUP TOTAL:	7,427

2,5b-s	
A 0,1,2	
Sod Crops	215
Idle	207
TOTAL:	422
B 0,1,2	
Sod Crops	1,074
Forest	207
TOTAL:	1,281
GROUP TOTAL:	1,702

APPENDIX E (cont'd.)

2,5b-cs	
A 0,1,2	
Forest	835
2,5c	
A 0,1,2	
Small Grains	208
Sod Crops	637
Idle	414
Pasture	414
Forest	2,791
TOTAL:	4,464
B 0,1,2	
Forest	429
GROUP TOTAL:	4,894
2,5c-c	
A 0,1,2	
Pasture	394
Forest	197
GROUP TOTAL:	590
3a	
A 0,1,2	
Row Crops	207
Small Grains	414
Sod Crops	984
Idle	197
Pasture	590
Fruit	3,148
Forest	608
Other Rural	197
TOTAL:	6,345
B 0,1,2	
Row Crops	5,203
Small Grains	5,587
Sod Crops	9,989
Idle	7,096
Pasture	1,676
Fruit	12,953
Forest	15,096
Other Rural	3,955
TOTAL:	61,555
B 3,4,5	
Other Rural	208
C 0,1,2	
Row Crops	8,086
Small Grains	7,090
Sod Crops	10,360
Idle	5,440
Pasture	5,849
Fruit	11,344
Forest	12,725
Other Rural	2,682
TOTAL:	63,576
C 3,4,5	
Idle	208
Forest	1,596
Other Rural	416
TOTAL:	2,220
D 0,1,2	
Row Crops	416
Small Grains	623
Sod Crops	4,002
Idle	1,466
Pasture	2,915
Fruit	3,954
Forest	7,167
Other Rural	624
TOTAL:	21,167
D 3,4,5	
Small Grains	207
Sod Crops	1,655
Idle	621
Pasture	207
Fruit	624
Other Rural	208
TOTAL:	3,522
E 0,1,2	
Row Crops	207
Sod Crops	1,574
Idle	626
Pasture	6,618
Fruit	1,377
Forest	7,298
Other Rural	3,133
TOTAL:	20,833
E 3,4,5	
Forest	207
Other Rural	416
TOTAL:	623
F 0,1,2	
Row Crops	207
Sod Crops	787
Idle	209
Pasture	5,386
Fruit	394
Forest	15,190
Other Rural	215
TOTAL:	22,388
G 0,1,2	
Forest	418
GROUP TOTAL:	202,853

APPENDIX E (cont'd.)

3a-s

A 0,1,2

Small Grains	209
Sod Crops	626
Idle	626
Fruit	209
Forest	418
Other Rural	418
TOTAL:	2,506

B 0,1,2

Sod Crops	209
GROUP TOTAL:	2,714

3b

A 0,1,2

Row Crops	632
Sod Crops	422
Idle	1,453
Pasture	415
Other Rural	208
TOTAL:	3,130

B 0,1,2

Row Crops	414
Idle	414
Forest	414
Other Rural	207
TOTAL:	1,449
GROUP TOTAL:	4,578

3b-s

A 0,1,2

Small Grains	208
Sod Crops	590
Idle	590
Pasture	1,214
Fruit	1,181
Forest	1,024
TOTAL:	4,807

B 0,1,2

Sod Crops	601
Pasture	197
Fruit	209
TOTAL:	1,007
GROUP TOTAL:	5,815

3c-s

A 0,1,2

Small Grains	209
Sod Crops	197
Pasture	626
Forest	811
Other Rural	209
TOTAL:	2,052

B 0,1,2

Pasture	209
Forest	418
TOTAL:	627
GROUP TOTAL:	2,678

3/1c

A 0,1,2

Small Grains	802
Sod Crops	218
Pasture	1,454
Fruit	416
Forest	1,637
TOTAL:	4,527

B 0,1,2

Pasture	204
Forest	1,029
Other Rural	215
TOTAL:	1,448
GROUP TOTAL:	5,974

3/2a

A 0,1,2

Sod Crops	394
Idle	416
Pasture	197
Other Rural	208
TOTAL:	1,215

B 0,1,2

Row Crops	208
Sod Crops	197
Fruit	197
TOTAL:	602

C 0,1,2

Sod Crops	1,187
Pasture	807
Forest	204
Other Rural	204
TOTAL:	2,402

D 0,1,2

Sod Crops	394
Idle	787
Pasture	197
Fruit	197
TOTAL:	1,575

E 0,1,2

Sod Crops	415

E 3,4,5

Sod Crops	437

APPENDIX E (cont'd.)

F 0,1,2	
Pasture	197
GROUP TOTAL:	6,840
3/2b	
B 0,1,2	
Small Grains	595
Sod Crops	368
Other Rural	399
GROUP TOTAL:	1,361
3/5a	
A 0,1,2	
Sod Crops	1,654
B 0,1,2	
Sod Crops	816
GROUP TOTAL:	2,471
3/5b	
A 0,1,2	
Forest	429
4a	
AB 0,1,2	
Row Crops	9,580
Small Grains	4,779
Sod Crops	23,137
Idle	9,739
Pasture	10,632
Fruit	11,408
Forest	26,299
Other Rural	8,577
TOTAL:	104,151
AB 3,4,5	
Fruit	208
Forest	207
TOTAL:	415
C 0,1,2	
Row Crops	3,772
Small Grains	2,700
Sod Crops	5,207
Idle	6,012
Pasture	4,750
Fruit	7,806
Forest	20,383
Other Rural	5,153
TOTAL:	55,783
C 3,4,5	
Fruit	1,247
D 0,1,2	
Row Crops	595
Sod Crops	3,060
Idle	6,443
Pasture	4,201
Fruit	6,126
Forest	18,500
Other Rural	1,235
TOTAL:	40,160
D 3,4,5	
Idle	621
Forest	208
TOTAL:	829
E 0,1,2	
Sod Crops	1,397
Idle	1,879
Pasture	8,631
Fruit	197
Forest	27,230
Other Rural	2,759
TOTAL:	42,093
E 3,4,5	
Idle	1,218
Fruit	1,060
Forest	1,784
TOTAL:	4,062
F 0,1,2	
Row Crops	208
Sod Crops	405
Idle	4,373
Pasture	6,006
Forest	28,247
Other Rural	1,057
TOTAL:	40,296
F 3,4,5	
Idle	397
Fruit	793
Forest	397
TOTAL:	1,587
G 0,1,2	
Pasture	209
Forest	209
TOTAL:	418
GROUP TOTAL:	291,036
4b	
AB 0,1,2	
Row Crops	991
Small Grains	1,190
Sod Crops	198
Idle	1,616
Pasture	413
Forest	413
Other Rural	215
GROUP TOTAL:	5,035

APPENDIX E (cont'd.)

4c

AB 0,1,2	
Row Crops	198
Small Grains	198
Idle	624
Forest	3,120
Other Rural	429
GROUP TOTAL:	4,569

4/1b

AB 0,1,2	
Row Crops	207

4/2a

AB 0,1,2	
Row Crops	814
Small Grains	184
Idle	208
Pasture	208
Forest	215
Other Rural	2,140
TOTAL:	3,769
C 0,1,2	
Sod Crops	416
Idle	416
TOTAL:	832
D 0,1,2	
Idle	208
Pasture	207
Forest	215
Other Rural	411
TOTAL:	1,041
E 0,1,2	
Forest	814
F 0,1,2	
Pasture	204
Forest	611
Other Rural	407
TOTAL:	1,222
GROUP TOTAL:	7,677

4/2b

AB 0,1,2	
Row Crops	2,287
Small Grains	1,236
Sod Crops	7,579
Idle	2,495
Pasture	2,681
Forest	2,088
Other Rural	859
GROUP TOTAL:	19,224

4/2c

AB 0,1,2	
Row Crops	208
Pasture	1,895
Forest	3,119
GROUP TOTAL:	5,222

5a

AB 0,1,2	
Row Crops	3,808
Small Grains	6,992
Sod Crops	7,086
Idle	28,512
Pasture	5,334
Fruit	10,715
Forest	81,234
Other Rural	19,878
TOTAL:	163,559
AB 3,4,5	
Forest	2,287
C 0,1,2	
Row Crops	625
Small Grains	1,288
Sod Crops	4,054
Idle	12,347
Pasture	2,082
Fruit	4,225
Forest	27,716
Other Rural	5,340
TOTAL:	57,677
C 3,4,5	
Row Crops	198
Idle	197
Fruit	416
Forest	1,214
TOTAL:	2,025
D 0,1,2	
Row Crops	218
Small Grains	218
Sod Crops	2,153
Idle	2,858
Pasture	1,861
Fruit	204
Forest	27,531
Other Rural	2,680
TOTAL:	37,723
D 3,4,5	
Small Grains	204
Idle	1,428
Pasture	1,702
Fruit	416
TOTAL:	3,750

APPENDIX E (cont'd.)

E 0,1,2	
Idle	2,410
Pasture	408
Forest	28,387
Other Rural	825
TOTAL:	32,030
E 3,4,5	
Small Grains	204
Sod Crops	1,746
Pasture	1,244
Fruit	207
Forest	1,464
Other Rural	1,021
TOTAL:	5,886
F 0,1,2	
Sod Crops	873
Idle	1,023
Pasture	3,749
Fruit	204
Forest	22,927
Other Rural	1,238
TOTAL:	30,014
F 3,4,5	
Idle	1,196
Fruit	198
Forest	1,809
TOTAL:	3,203
GROUP TOTAL:	338,154

5a-h	
AB 0,1,2	
Fruit	418
Forest	1,050
Other Rural	215
GROUP TOTAL:	1,682

5b	
AB 0,1,2	
Row Crops	812
Small Grains	198
Sod Crops	198
Idle	3,460
Pasture	2,073
Forest	8,359
Other Rural	842
GROUP TOTAL:	15,942

5b-h	
AB 0,1,2	
Row Crops	1,417
Small Grains	208
Sod Crops	624
Idle	2,040
Pasture	2,079
Forest	4,558
Other Rural	416
GROUP TOTAL:	11,341

5c	
AB 0,1,2	
Row Crops	198
Small Grains	1,210
Sod Crops	835
Idle	3,035
Pasture	3,128
Forest	25,160
Other Rural	823
GROUP TOTAL:	34,389

5c-a	
AB 0,1,2	
Row Crops	595
Small Grains	207
Sod Crops	204
Idle	406
Forest	5,298
GROUP TOTAL:	6,709

5/2a	
AB 0,1,2	
Row Crops	208
Idle	208
Pasture	208
Forest	644
Other Rural	2,140
TOTAL:	3,408
C 0,1,2	
Pasture	208
D 0,1,2	
Pasture	204
E 0,1,2	
Forest	208
GROUP TOTAL:	4,028

5/2b	
AB 0,1,2	
Small Grains	624
Sod Crops	208
Idle	1,209
Pasture	414
Forest	3,703
Other Rural	423
GROUP TOTAL:	6,580

APPENDIX E (cont'd.)

5.3a

AB 0,1,2

Row Crops	198
Small Grains	3,467
Sod Crops	852
Idle	9,450
Pasture	843
Fruit	1,983
Forest	63,182
Other Rural	1,601
TOTAL:	81,576

AB 3,4,5

Forest	624

C 0,1,2

Small Grains	605
Sod Crops	218
Idle	2,291
Pasture	1,466
Forest	27,342
Other Rural	423
TOTAL:	32,345

C 3,4,5

Row Crops	198
Idle	2,427
Fruit	198
Forest	1,407
Other Rural	397
TOTAL:	4,627

D 0,1,2

Row Crops	197
Pasture	832
Forest	11,364
Other Rural	197
TOTAL:	12,590

D 3,4,5

Forest	416

E 0,1,2

Pasture	218
Forest	2,435
TOTAL:	2,653

F 0,1,2

Pasture	218
Forest	14,853
Other Rural	1,660
TOTAL:	16,731

F 3,4,5

Idle	198
GROUP TOTAL:	151,759

5.7a

AB 0,1,2

Idle	208
Pasture	208
Forest	15,529
Other Rural	208
TOTAL:	16,153

C 0,1,2

Forest	1,249

D 0,1,2

Forest	218
GROUP TOTAL:	17,620

L-2c

A 0,1,2

Sod Crops	208
Idle	417
Pasture	402
Fruit	397
Forest	2,219
GROUP TOTAL:	3,642

L-4a

A 0,1,2

Sod Crops	417

B 0,1,2

Row Crops	397
Sod Crops	198
Idle	595
Fruit	595
Forest	1,992
TOTAL:	3,777
GROUP TOTAL:	4,192

L-Mc

A 0,1,2

Small Grains	218
Sod Crops	1,288
Pasture	819
Forest	11,755
Other Rural	199
GROUP TOTAL:	14,279

Mc

A 0,1,2

Row Crops	416
Sod Crops	829
Idle	415
Pasture	1,278
Forest	42,797
Other Rural	811
GROUP TOTAL:	46,545

APPENDIX E (cont'd.)

Mc-a	
A 0,1,2	
Forest	5,377
Other Rural	590
GROUP TOTAL:	5,967
M/1c	
A 0,1,2	
Idle	1,455
Other Rural	208
GROUP TOTAL:	1,663
M/3c	
A 0,1,2	
Fruit	204
Forest	5,298
Other Rural	850
GROUP TOTAL:	6,352
M/4c	
A 0,1,2	
Row Crops	198
Small Grains	595
Idle	793
Forest	12,565
Other Rural	2,254
GROUP TOTAL:	16,405
M/Mc	
A 0,1,2	
Forest	1,237
Other Rural	197
GROUP TOTAL:	1,434
Ga	
A 0,1,2	
Forest	2,791
B 0,1,2	
Row Crops	1,028
Sod Crops	418
Idle	841
Fruit	1,670
Forest	1,491
Other Rural	418
TOTAL:	5,866
C 0,1,2	
Forest	7,939
Other Rural	644
TOTAL:	8,583
GROUP TOTAL:	17,241
LRA TOTAL:	1,364,660

APPENDIX F

Land Use By SMU In LRA 97

Miscellaneous	
A 0,1,2	
Fruit	209
Forest	2,724
GROUP TOTAL:	2,934
1a	
A 0,1,2	
Row Crops	190
Sod Crops	818
TOTAL:	1,008
B 0,1,2	
Row Crops	2,337
Small Grains	2,549
Sod Crops	399
Idle	190
Pasture	212
Fruit	1,671
Forest	212
Other Rural	425
TOTAL:	7,995
C 0,1,2	
Row Crops	425
Small Grains	402
Sod Crops	634
Idle	805
Fruit	402
Other Rural	212
TOTAL:	2,880
C 3,4,5	
Fruit	402
Forest	212
TOTAL:	614
E 3,4,5	
Sod Crops	209
Forest	209
TOTAL:	418
F 0,1,2	
Forest	592
GROUP TOTAL:	13,511
1b	
A 0,1,2	
Row Crops	2,067
Small Grains	1,349
Sod Crops	4,402
Idle	402
Pasture	209
Fruit	4,181
Forest	847
TOTAL:	13,457
B 0,1,2	
Row Crops	1,841
Small Grains	615
Sod Crops	422
Idle	1,919
Fruit	2,605
Forest	844
Other Rural	209
TOTAL:	8,445
GROUP TOTAL:	21,913
1c	
A 0,1,2	
Row Crops	209
Small Grains	380
Sod Crops	399
Forest	847
GROUP TOTAL:	1,835
1,5a	
A 0,1,2	
Idle	190
B 0,1,2	
Row Crops	3,464
Small Grains	3,282
Sod Crops	2,165
Idle	1,710
Fruit	380
Forest	1,140
Other Rural	1,352
TOTAL:	13,493
C 0,1,2	
Row Crops	1,822
Small Grains	950
Sod Crops	1,185
Idle	1,162
Pasture	570
Fruit	570
Forest	1,710
Other Rural	782
TOTAL:	8,751

APPENDIX F (cont'd.)

C 3,4,5	
Row Crops	190
Small Grains	1,140
TOTAL:	1,330
D 0,1,2	
Sod Crops	380
Idle	190
Forest	1,427
Other Rural	190
TOTAL:	2,187
D 3,4,5	
Sod Crops	380
Idle	760
TOTAL:	1,140
E 3,4,5	
Idle	190
Forest	190
TOTAL:	380
F 0,1,2	
Small Grains	201
Pasture	402
Forest	972
TOTAL:	1,575
F 3,4,5	
Forest	190
GROUP TOTAL:	29,235

1,5b

A 0,1,2	
Row Crops	1,385
Small Grains	1,452
Sod Crops	592
Idle	1,520
Fruit	609
Forest	402
Other Rural	201
TOTAL:	6,161
B 0,1,2	
Row Crops	3,211
Small Grains	1,628
Sod Crops	1,645
Idle	2,515
Pasture	212
Fruit	1,140
Forest	209
Other Rural	570
TOTAL:	11,130
GROUP TOTAL:	17,293

1,5c

A 0,1,2	
Row Crops	983
Small Grains	1,000
Sod Crops	1,019
Idle	1,539
Fruit	615
Forest	3,191
Other Rural	399
TOTAL:	8,746
B 0,1,2	
Row Crops	190
Small Grains	380
Fruit	209
Other Rural	209
TOTAL:	988
GROUP TOTAL:	9,734

2,5a

A 0,1,2	
Row Crops	419
Fruit	570
Other Rural	190
TOTAL:	1,179
B 0,1,2	
Row Crops	5,512
Small Grains	1,852
Sod Crops	4,414
Idle	1,207
Pasture	818
Fruit	1,237
Forest	2,386
Other Rural	209
TOTAL:	17,635
B 3,4,5	
Fruit	760
C 0,1,2	
Row Crops	4,022
Small Grains	402
Sod Crops	1,433
Idle	1,017
Pasture	1,884
Fruit	1,027
Forest	989
Other Rural	612
TOTAL:	11,386
C 3,4,5	
Row Crops	399
Sod Crops	209
TOTAL:	608
D 0,1,2	
Sod Crops	190
Idle	570
Pasture	1,159
Forest	779
TOTAL:	2,698

APPENDIX F (cont'd.)

D 3,4,5	
Row Crops	950
Idle	380
Fruit	190
Forest	190
TOTAL:	1,710
E 0,1,2	
Idle	570
Pasture	190
Forest	570
TOTAL:	1,330
E 3,4,5	
Forest	190
F 0,1,2	
Forest	570
GROUP TOTAL:	38,066

2,5a-s	
A 0,1,2	
Row Crops	760
Small Grains	847
Sod Crops	380
Idle	609
Fruit	190
Forest	760
TOTAL:	3,546
B 0,1,2	
Row Crops	760
Small Grains	209
Sod Crops	1,256
Idle	190
Pasture	209
Fruit	589
Forest	760
Other Rural	419
TOTAL:	4,392
GROUP TOTAL:	7,938

2,5b	
A 0,1,2	
Row Crops	1,388
Small Grains	1,845
Sod Crops	419
Idle	380
Pasture	1,675
Fruit	570
Forest	1,243
Other Rural	190
TOTAL:	7,710
B 0,1,2	
Row Crops	1,675
Small Grains	2,096
Sod Crops	827
Idle	380
Pasture	419
Fruit	380
Forest	1,268
TOTAL:	7,045
GROUP TOTAL:	14,755

2,5b-s	
A 0,1,2	
Row Crops	4,788
Small Grains	628
Sod Crops	612
Idle	2,509
Pasture	419
Fruit	1,027
Forest	1,053
Other Rural	818
TOTAL:	11,854
B 0,1,2	
Row Crops	818
Small Grains	209
Idle	628
Pasture	209
Fruit	837
Forest	2,674
TOTAL:	5,375
GROUP TOTAL:	17,230

2,5c	
A 0,1,2	
Row Crops	212
Idle	190
Pasture	419
Forest	209
Other Rural	190
TOTAL:	1,220
B 0,1,2	
Small Grains	190
Forest	402
Other Rural	212
TOTAL:	804
GROUP TOTAL:	2,025

2,5c-s	
A 0,1,2	
Row Crops	8,173
Small Grains	3,420
Sod Crops	1,465
Idle	4,148
Pasture	2,512
Fruit	190

APPENDIX F (cont'd.)

Forest	7,710
Other Rural	818
TOTAL:	28,436
B 0,1,2	
Row Crops	209
Small Grains	209
Sod Crops	209
Idle	380
Fruit	380
Forest	190
TOTAL:	1,577
GROUP TOTAL:	30,014

3a

A 0,1,2	
Row Crops	3,738
Small Grains	1,948
Sod Crops	5,733
Idle	1,775
Pasture	616
Fruit	4,000
Forest	760
Other Rural	1,041
TOTAL:	19,611
B 0,1,2	
Row Crops	10,675
Small Grains	4,433
Sod Crops	13,200
Idle	4,714
Pasture	844
Fruit	9,038
Forest	4,454
Other Rural	3,223
TOTAL:	50,581
B 3,4,5	
Idle	471
Fruit	190
Forest	1,179
TOTAL:	1,840
C 0,1,2	
Row Crops	2,494
Small Grains	1,238
Sod Crops	2,611
Idle	6,675
Pasture	1,056
Fruit	4,869
Forest	6,543
Other Rural	1,787
TOTAL:	27,273
C 3,4,5	
Small Grains	609
Sod Crops	209
Idle	3,168
Fruit	1,826
Forest	818
Other Rural	209
TOTAL:	6,839
D 0,1,2	
Row Crops	190
Small Grains	201
Idle	2,220
Forest	1,008
Other Rural	802
TOTAL:	4,421
D 3,4,5	
Row Crops	2,311
Small Grains	1,807
Sod Crops	2,792
Idle	2,042
Pasture	1,492
Fruit	209
Forest	1,997
Other Rural	1,126
TOTAL:	13,776
E 0,1,2	
Sod Crops	471
Idle	570
TOTAL:	1,041
E 3,4,5	
Sod Crops	628
Idle	943
Pasture	628
Forest	1,335
Other Rural	707
TOTAL:	4,241
F 0,1,2	
Idle	236
Forest	996
TOTAL:	1,232
F 3,4,5	
Idle	236
Fruit	190
Forest	628
TOTAL:	1,054
GROUP TOTAL:	131,907

3a-m

A 0,1,2	
Row Crops	236
Sod Crops	471
TOTAL:	707
B 0,1,2	
Row Crops	2,829
Small Grains	1,886

APPENDIX F (cont'd.)

Sod Crops	471
TOTAL:	5,186
GROUP TOTAL:	5,893

3b

A 0,1,2

Fruit	380

3c

A 0,1,2

Row Crops	212
Forest	212
GROUP TOTAL:	425

3/1a

A 0,1,2

Row Crops	1,375
Sod Crops	1,047
Idle	190
Fruit	570
Forest	209
TOTAL:	3,391

B 0,1,2

Row Crops	3,555
Small Grains	609
Sod Crops	2,934
Idle	1,777
Pasture	425
Fruit	2,473
Forest	422
Other Rural	628
TOTAL:	12,823

C 0,1,2

Small Grains	212
Sod Crops	631
Idle	212
Fruit	1,062
Forest	212
Other Rural	190
TOTAL:	2,519

C 3,4,5

Sod Crops	190

F 0,1,2

Forest	840
Other Rural	212
TOTAL:	1,052
GROUP TOTAL:	19,977

3/1c

A 0,1,2

Row Crops	2,073
Small Grains	2,102
Idle	2,270
Pasture	399
Fruit	212
Forest	212
Other Rural	419
TOTAL:	7,687

B 0,1,2

Idle	190
GROUP TOTAL:	7,878

3/2a

A 0,1,2

Small Grains	419
Forest	190
TOTAL:	609

B 0,1,2

Row Crops	1,852
Small Grains	419
Sod Crops	1,240
Idle	631
Pasture	631
Fruit	628
Forest	609
TOTAL:	6,010

C 0,1,2

Row Crops	1,037
Small Grains	190
Sod Crops	209
Forest	419
TOTAL:	1,855

D 0,1,2

Pasture	209
GROUP TOTAL:	8,681

3/2b

A 0,1,2

Row Crops	419
Small Grains	209
Idle	1,603
Fruit	209
TOTAL:	2,440

B 0,1,2

Row Crops	1,027
Sod Crops	209
Idle	402
Pasture	419
Fruit	419
Forest	631
Other Rural	399
TOTAL:	3,506
GROUP TOTAL:	5,948

APPENDIX F (cont'd.)

3/5a

A 0,1,2

Row Crops	8,435
Small Grains	2,595
Sod Crops	3,745
Pasture	209
Fruit	2,927
Forest	409
Other Rural	3,919
TOTAL:	22,239

B 0,1,2

Row Crops	12,122
Small Grains	3,574
Sod Crops	8,876
Idle	2,075
Pasture	1,749
Fruit	3,124
Forest	5,321
Other Rural	6,128
TOTAL:	42,969

B 3,4,5

Sod Crops	190

C 0,1,2

Row Crops	3,167
Small Grains	2,901
Sod Crops	1,236
Idle	399
Pasture	1,852
Fruit	818
Forest	2,549
Other Rural	2,304
TOTAL:	15,226

C 3,4,5

Row Crops	190
Sod Crops	399
Idle	190
Pasture	380
Fruit	1,884
Other Rural	209
TOTAL:	3,252

D 0,1,2

Row Crops	190
Sod Crops	769
Idle	380
Pasture	209
Forest	1,408
Other Rural	1,604
TOTAL:	4,560

D 3,4,5

Row Crops	992
Small Grains	209
Sod Crops	425
Idle	779
Pasture	634
Other Rural	2,357
TOTAL:	5,396

E 0,1,2

Sod Crops	209
Idle	419
Forest	837
Other Rural	236
TOTAL:	1,701

E 3,4,5

Idle	950
Pasture	1,047
Forest	837
TOTAL:	2,834

F 0,1,2

Idle	209
Pasture	209
Forest	4,357
TOTAL:	4,775
GROUP TOTAL:	103,146

3/5b

A 0,1,2

Row Crops	1,159
Small Grains	609
Sod Crops	209
Idle	589
Pasture	419
Fruit	380
Other Rural	570
TOTAL:	3,935

B 0,1,2

Fruit	209
GROUP TOTAL:	4,144

3/5c

A 0,1,2

Row Crops	1,756
Small Grains	2,682
Sod Crops	419
Pasture	2,278
Fruit	1,710
Forest	4,563
Other Rural	570
TOTAL:	13,978

B 0,1,2

Row Crops	190
Sod Crops	190
Idle	190
TOTAL:	570
GROUP TOTAL:	14,548

APPENDIX F (cont'd.)

4a

AB 0,1,2	
Row Crops	13,884
Small Grains	3,888
Sod Crops	1,452
Idle	1,162
Pasture	804
Fruit	5,371
Forest	3,060
Other Rural	1,179
TOTAL:	30,800
AB 3,4,5	
Fruit	380
C 0,1,2	
Row Crops	2,186
Small Grains	829
Sod Crops	2,235
Idle	847
Pasture	212
Fruit	1,600
Forest	1,678
Other Rural	209
TOTAL:	9,796
C 3,4,5	
Fruit	190
Other Rural	212
TOTAL:	402
D 0,1,2	
Small Grains	603
Fruit	760
Forest	209
TOTAL:	1,572
D 3,4,5	
Row Crops	190
Small Grains	209
Sod Crops	799
Pasture	209
Fruit	380
Forest	609
Other Rural	209
TOTAL:	2,605
E 0,1,2	
Small Grains	402
Pasture	391
TOTAL:	793
F 0,1,2	
Sod Crops	190
Idle	190
Forest	190
TOTAL:	570
GROUP TOTAL:	46,917

4b

AB 0,1,2	
Row Crops	1,617
Small Grains	209
Sod Crops	1,421
Idle	779
Pasture	236
Fruit	1,710
Forest	3,875
GROUP TOTAL:	9,848

4c

AB 0,1,2	
Row Crops	4,364
Small Grains	445
Sod Crops	1,349
Idle	589
Fruit	190
Forest	2,303
Other Rural	609
GROUP TOTAL:	9,849

4/1b

AB 0,1,2	
Row Crops	3,635
Small Grains	3,493
Sod Crops	6,031
Idle	5,924
Fruit	6,670
Forest	6,300
Other Rural	821
TOTAL:	32,874
AB 3,4,5	
Fruit	425
GROUP TOTAL:	33,300

4/2a

AB 0,1,2	
Row Crops	1,056
Small Grains	212
Sod Crops	847
Idle	850
Fruit	380
Forest	209
Other Rural	212
TOTAL:	3,766
C 0,1,2	
Row Crops	190
Idle	637
TOTAL:	827

APPENDIX F (cont'd.)

D 0,1,2	
Idle	212
Forest	425
TOTAL:	637
D 3,4,5	
Pasture	212
E 0,1,2	
Pasture	209
GROUP TOTAL:	5,653

4/2b	
AB 0,1,2	
Row Crops	782

4/2c	
AB 0,1,2	
Row Crops	212
Sod Crops	419
Idle	209
Forest	1,243
Other Rural	209
GROUP TOTAL:	2,293

5a	
AB 0,1,2	
Row Crops	2,914
Small Grains	212
Sod Crops	212
Idle	2,428
Fruit	4,215
Forest	1,240
Other Rural	1,179
TOTAL:	12,400
C 0,1,2	
Row Crops	425
Idle	615
Fruit	805
Forest	615
Other Rural	190
TOTAL:	2,650
C 3,4,5	
Fruit	190
D 0,1,2	
Row Crops	190
Idle	380
Fruit	190
Forest	212
TOTAL:	972
D 3,4,5	
Idle	190
Forest	209
TOTAL:	399
E 0,1,2	
Forest	570
F 0,1,2	
Idle	380
GROUP TOTAL:	17,561

5b	
AB 0,1,2	
Row Crops	8,086
Small Grains	2,656
Sod Crops	5,446
Idle	16,114
Pasture	1,906
Fruit	8,906
Forest	22,397
Other Rural	2,666
TOTAL:	68,177
AB 3,4,5	
Forest	1,047
GROUP TOTAL:	69,224

5b-h	
AB 0,1,2	
Sod Crops	209
Idle	1,014
Pasture	209
Fruit	190
Forest	1,430
GROUP TOTAL:	3,053

5c	
AB 0,1,2	
Row Crops	6,519
Small Grains	1,655
Sod Crops	4,838
Idle	8,620
Pasture	1,696
Fruit	4,003
Forest	14,666
Other Rural	992
GROUP TOTAL:	42,988

5/2a	
AB 0,1,2	
Row Crops	2,672
Small Grains	1,458
Sod Crops	2,504
Idle	3,734
Fruit	4,811
Forest	3,120
Other Rural	2,640
TOTAL:	20,939

APPENDIX F (cont'd.)

C 0,1,2	
Row Crops	782
Sod Crops	1,050
Fruit	760
Forest	609
TOTAL:	3,201
D 3,4,5	
Row Crops	212
Sod Crops	212
Pasture	212
TOTAL:	636
F 0,1,2	
Pasture	209
Forest	419
Other Rural	212
TOTAL:	840
GROUP TOTAL:	25,618

5/2b

AB 0,1,2	
Row Crops	2,459
Small Grains	1,912
Sod Crops	1,487
Idle	1,696
Pasture	1,062
Fruit	1,912
Forest	6,367
Other Rural	425
GROUP TOTAL:	17,320

5,3a

AB 0,1,2	
Row Crops	13,294
Small Grains	3,995
Sod Crops	6,608
Idle	14,561
Pasture	631
Fruit	15,065
Forest	44,450
Other Rural	10,957
TOTAL:	109,561
AB 3,4,5	
Idle	1,272
Forest	840
TOTAL:	2,112
C 0,1,2	
Row Crops	1,027
Small Grains	425
Sod Crops	618
Idle	3,193
Pasture	419
Fruit	2,927
Forest	2,968
Other Rural	896
TOTAL:	12,473
C 3,4,5	
Row Crops	609
Small Grains	628
Idle	873
Fruit	628
Forest	5,034
Other Rural	1,787
TOTAL:	9,559
D 0,1,2	
Row Crops	190
Idle	920
Fruit	579
Forest	4,036
TOTAL:	5,725
D 3,4,5	
Small Grains	212
Idle	1,259
Pasture	209
Forest	1,655
TOTAL:	3,335
E 0,1,2	
Idle	380
Forest	399
TOTAL:	779
E 3,4,5	
Fruit	818
Other Rural	570
TOTAL:	1,388
F 0,1,2	
Forest	5,689
F 3,4,5	
Pasture	209
Forest	609
Other Rural	2,660
TOTAL:	3,478
GROUP TOTAL:	154,101

L-2a

A 0,1,2	
Row Crops	950
Sod Crops	380
Idle	425
Fruit	212
Forest	6,494
TOTAL:	8,461
B 0,1,2	
Row Crops	380
Forest	380
TOTAL:	760
GROUP TOTAL:	9,221

APPENDIX F (cont'd.)

L-2c	
A 0,1,2	
Row Crops	3,013
Small Grains	615
Sod Crops	1,571
Idle	2,049
Pasture	1,021
Fruit	399
Forest	19,489
Other Rural	4,425
TOTAL:	32,582
B 0,1,2	
Row Crops	847
Small Grains	209
Sod Crops	422
Idle	402
Pasture	212
Fruit	992
Forest	2,524
TOTAL:	5,608
GROUP TOTAL:	38,190
L-4a	
A 0,1,2	
Row Crops	209
Small Grains	209
Forest	570
TOTAL:	988
B 0,1,2	
Forest	850
GROUP TOTAL:	1,838
L-4c	
A 0,1,2	
Idle	212
Forest	3,818
GROUP TOTAL:	4,030
L-Mc	
A 0,1,2	
Fruit	209
Forest	402
GROUP TOTAL:	612
Mc	
A 0,1,2	
Row Crops	5,391
Small Grains	628
Sod Crops	1,249
Idle	2,878
Pasture	4,105
Forest	19,726
Other Rural	2,757
TOTAL:	36,734
B 0,1,2	
Row Crops	209
Forest	402
TOTAL:	611
GROUP TOTAL:	37,346
M/3c	
A 0,1,2	
Row Crops	589
Small Grains	380
Sod Crops	209
Idle	995
Pasture	209
Forest	779
Other Rural	209
TOTAL:	3,370
B 0,1,2	
Forest	190
GROUP TOTAL:	3,561
M/1c	
A 0,1,2	
Forest	422
M/4c	
A 0,1,2	
Row Crops	837
Sod Crops	212
Idle	182
Forest	631
Other Rural	545
GROUP TOTAL:	2,407
M/Mc	
A 0,1,2	
Row Crops	3,349
Small Grains	1,256
Idle	850
Pasture	419
Forest	2,543
Other Rural	628
GROUP TOTAL:	9,045
LRA TOTAL:	1,054,587

APPENDIX G

Land Use By SMU In LRA 98

Miscellaneous

A 0,1,2

Row Crops	1,278
Sod Crops	197
Idle	431
Pasture	5,306
Forest	11,264
Other Rural	10,942
TOTAL:	29,418

B 3,4,5

Sod Crops	804
Idle	368
Forest	1,322
TOTAL:	2,494

C 3,4,5

Row Crops	201
Pasture	201
Other Rural	201
TOTAL:	603

D 3,4,5

Idle	201
Forest	603
TOTAL:	804

E 3,4,5

Forest	1,005

F 3,4,5

Forest	201

G 3,4,5

Forest	184
Other Rural	184
TOTAL:	368
Undetermined	7,312
GROUP TOTAL:	42,204

0b

A 0,1,2

Sod Crops	665
Forest	2,350
TOTAL:	3,015

B 0,1,2

Small Grains	213
GROUP TOTAL:	3,229

0c

A 0,1,2

Row Crops	1,614
Small Grains	1,000
Forest	414
GROUP TOTAL:	3,027

1a

A 0,1,2

Small Grains	213
Pasture	426
Other Rural	213
TOTAL:	852

B 0,1,2

Row Crops	2,865
Small Grains	426
Sod Crops	6,688
Idle	426
Pasture	1,278
Fruit	1,491
Forest	627
Other Rural	813
TOTAL:	14,614

C 0,1,2

Row Crops	2,128
Small Grains	628
Sod Crops	2,986
Pasture	638
Fruit	425
Forest	1,702
Other Rural	425
TOTAL:	8,932

C 3,4,5

Row Crops	212
Small Grains	212
Sod Crops	200
Pasture	213
TOTAL:	837

D 0,1,2

Small Grains	639
Sod Crops	213
Other Rural	213
TOTAL:	1,065

D 3,4,5

Row Crops	839
Small Grains	212
Sod Crops	1,278
Pasture	638
Forest	850
TOTAL:	3,817

E 0,1,2

Forest	213

APPENDIX G (cont'd.)

E 3,4,5	
Pasture	639
GROUP TOTAL:	30,972

1b

A 0,1,2	
Row Crops	2,325
Small Grains	1,914
Sod Crops	2,257
Idle	3,665
Pasture	2,325
Fruit	213
Forest	2,340
Other Rural	616
TOTAL:	15,655
B 0,1,2	
Row Crops	8,530
Small Grains	5,511
Sod Crops	6,610
Idle	2,512
Pasture	626
Forest	1,688
Other Rural	1,263
TOTAL:	26,740
GROUP TOTAL:	42,397

1c

A 0,1,2	
Row Crops	852
Small Grains	1,320
Sod Crops	3,242
Idle	200
Pasture	1,053
Forest	2,185
GROUP TOTAL:	8,852

1.5a

A 0,1,2	
Row Crops	2,984
Small Grains	2,131
Sod Crops	3,199
Idle	1,073
Fruit	213
Forest	640
Other Rural	213
TOTAL:	10,453
B 0,1,2	
Row Crops	52,234
Small Grains	32,708
Sod Crops	44,550
Idle	15,876
Pasture	4,706
Fruit	8,481
Forest	15,374
Other Rural	20,915
TOTAL:	194,844
B 3,4,5	
Sod Crops	213
C 0,1,2	
Row Crops	10,572
Small Grains	8,081
Sod Crops	16,269
Idle	6,058
Pasture	2,125
Fruit	2,474
Forest	7,673
Other Rural	4,919
TOTAL:	58,171
C 3,4,5	
Row Crops	2,097
Small Grains	1,485
Sod Crops	2,276
Idle	2,170
Pasture	413
Fruit	639
Forest	1,231
Other Rural	843
TOTAL:	11,154
D 0,1,2	
Row Crops	1,921
Small Grains	853
Sod Crops	3,555
Idle	2,678
Pasture	1,456
Fruit	414
Forest	3,135
Other Rural	2,099
TOTAL:	16,111
D 3,4,5	
Row Crops	638
Small Grains	852
Sod Crops	3,784
Idle	1,496
Pasture	1,231
Fruit	213
Forest	2,326
Other Rural	1,277
TOTAL:	11,817
E 0,1,2	
Row Crops	201
Small Grains	413
Idle	212
Pasture	402
Forest	1,440
Other Rural	576
TOTAL:	3,244

APPENDIX G (cont'd.)

E 3,4,5	
Sod Crops	647
Idle	849
Pasture	643
Fruit	213
Forest	1,203
Other Rural	399
TOTAL:	3,954
F 0,1,2	
Row Crops	420
Fruit	213
Forest	1,599
Other Rural	363
TOTAL:	2,595
F 3,4,5	
Sod Crops	201
Pasture	414
Forest	1,266
TOTAL:	1,881
G 0,1,2	
Idle	200
Forest	402
TOTAL:	602
GROUP TOTAL:	315,037

1.5b	
A 0,1,2	
Row Crops	32,612
Small Grains	13,541
Sod Crops	15,662
Idle	4,099
Pasture	3,295
Fruit	402
Forest	8,090
Other Rural	1,677
TOTAL:	79,378
B 0,1,2	
Row Crops	19,317
Small Grains	14,545
Sod Crops	20,078
Idle	4,356
Pasture	3,941
Fruit	615
Forest	5,467
Other Rural	5,076
TOTAL:	73,395
GROUP TOTAL:	152,772

1.5c	
A 0,1,2	
Row Crops	23,361
Small Grains	14,339
Sod Crops	14,772
Idle	7,039
Pasture	7,090
Fruit	201
Forest	35,244
Other Rural	4,319
TOTAL:	106,365
B 0,1,2	
Row Crops	450
Small Grains	213
Sod Crops	1,065
Idle	212
Pasture	213
Fruit	213
Forest	2,106
TOTAL:	4,472
GROUP TOTAL:	110,838

2.5a	
A 0,1,2	
Row Crops	10,090
Small Grains	12,502
Sod Crops	15,099
Idle	3,407
Pasture	3,420
Fruit	2,172
Forest	7,157
Other Rural	1,938
TOTAL:	55,785
A 3,4,5	
Sod Crops	213
Other Rural	182
TOTAL:	395
B 0,1,2	
Row Crops	121,147
Small Grains	117,344
Sod Crops	126,070
Idle	41,048
Pasture	13,007
Fruit	4,637
Forest	92,432
Other Rural	35,733
TOTAL:	551,418
B 3,4,5	
Row Crops	893
Sod Crops	450
Pasture	216
Forest	213
TOTAL:	1,772
C 0,1,2	
Row Crops	27,294

APPENDIX G (cont'd.)

Small Grains	27,890
Sod Crops	42,931
Idle	20,689
Pasture	7,121
Fruit	210
Forest	20,270
Other Rural	12,846
TOTAL:	159,251
C 3,4,5	
Row Crops	5,349
Small Grains	4,181
Sod Crops	8,542
Idle	8,125
Pasture	1,052
Fruit	241
Forest	454
Other Rural	1,223
TOTAL:	29,167
D 0,1,2	
Row Crops	2,153
Small Grains	6,087
Sod Crops	8,782
Idle	4,146
Pasture	2,753
Forest	10,747
Other Rural	1,925
TOTAL:	36,593
D 3,4,5	
Row Crops	2,780
Small Grains	2,808
Sod Crops	11,016
Idle	5,985
Pasture	6,301
Forest	3,692
Other Rural	2,678
TOTAL:	35,260
E 0,1,2	
Row Crops	1,064
Small Grains	1,288
Sod Crops	999
Idle	4,002
Pasture	860
Fruit	630
Forest	5,327
Other Rural	3,481
TOTAL:	17,651
E 3,4,5	
Row Crops	1,065
Small Grains	651
Sod Crops	3,710
Idle	1,951
Pasture	1,276
Forest	2,963
Other Rural	849
TOTAL:	12,465
F 0,1,2	
Small Grains	202
Idle	648
Pasture	216
Forest	2,267
Other Rural	455
TOTAL:	3,788
F 3,4,5	
Idle	216
Forest	415
Other Rural	202
TOTAL:	833
GROUP TOTAL:	904,378
2.5a-s	
A 0,1,2	
Row Crops	1,712
Small Grains	832
Sod Crops	212
Idle	788
Pasture	382
Fruit	382
Other Rural	810
TOTAL:	5,118
B 0,1,2	
Row Crops	2,940
Small Grains	3,216
Sod Crops	5,510
Idle	1,055
Forest	419
Other Rural	2,063
TOTAL:	15,203
C 0,1,2	
Row Crops	1,306
Small Grains	656
Sod Crops	202
Idle	216
Forest	645
Other Rural	621
TOTAL:	3,646
C 3,4,5	
Other Rural	202
D 0,1,2	
Sod Crops	608
Idle	444
TOTAL:	1,052
E 0,1,2	
Sod Crops	202

APPENDIX G (cont'd.)

Forest	202
TOTAL:	404
E 3,4,5	
Forest	202
Other Rural	807
TOTAL:	1,009
GROUP TOTAL:	26,634

2.5b

A 0,1,2	
Row Crops	79,593
Small Grains	50,327
Sod Crops	52,222
Idle	17,745
Pasture	7,759
Fruit	589
Forest	21,306
Other Rural	17,161
TOTAL:	246,702
B 0,1,2	
Row Crops	49,206
Small Grains	47,263
Sod Crops	41,586
Idle	14,556
Pasture	5,449
Fruit	868
Forest	22,741
Other Rural	14,010
TOTAL:	195,679
GROUP TOTAL:	442,379

2.5b-s

A 0,1,2	
Row Crops	8,320
Small Grains	5,338
Sod Crops	5,523
Idle	2,052
Forest	2,918
Other Rural	1,403
TOTAL:	25,554
B 0,1,2	
Row Crops	1,257
Small Grains	2,778
Sod Crops	2,547
Idle	868
Fruit	213
Forest	1,688
Other Rural	402
TOTAL:	9,753
GROUP TOTAL:	35,307

2.5c

A 0,1,2	
Row Crops	63,778
Small Grains	33,278
Sod Crops	39,487
Idle	7,949
Pasture	9,257
Fruit	204
Forest	29,506
Other Rural	14,071
TOTAL:	197,530
B 0,1,2	
Row Crops	4,623
Small Grains	5,885
Sod Crops	2,104
Idle	1,269
Pasture	633
Fruit	210
Forest	2,323
Other Rural	1,471
TOTAL:	18,518
GROUP TOTAL:	216,048

2.5c-c

A 0,1,2	
Row Crops	2,456
Small Grains	420
Sod Crops	1,222
Idle	407
Forest	834
GROUP TOTAL:	5,339

2.5c-s

A 0,1,2	
Row Crops	2,818
Small Grains	4,117
Sod Crops	2,802
Idle	1,314
Pasture	853
Forest	3,025
Other Rural	1,074
TOTAL:	16,003
B 0,1,2	
Row Crops	202
Sod Crops	1,211
Idle	212
TOTAL:	1,625
GROUP TOTAL:	17,628

2.5c-cs

A 0,1,2	
Row Crops	832

APPENDIX G (cont'd.)

Forest	204
GROUP TOTAL:	1,035

3a

A 0,1,2

Row Crops	50,033
Small Grains	24,403
Sod Crops	38,719
Idle	16,464
Pasture	1,225
Fruit	645
Forest	10,364
Other Rural	11,858
TOTAL:	153,711

B 0,1,2

Row Crops	129,582
Small Grains	73,513
Sod Crops	137,373
Idle	54,805
Pasture	15,632
Fruit	3,283
Forest	49,102
Other Rural	41,710
TOTAL:	505,000

B 3,4,5

Row Crops	214
Small Grains	641
Sod Crops	1,448
Idle	634
Other Rural	672
TOTAL:	3,609

C 0,1,2

Row Crops	32,199
Small Grains	18,052
Sod Crops	40,984
Idle	20,195
Pasture	10,393
Fruit	673
Forest	24,435
Other Rural	17,508
TOTAL:	164,439

C 3,4,5

Row Crops	5,367
Small Grains	8,461
Sod Crops	5,880
Idle	4,570
Pasture	2,693
Forest	2,334
Other Rural	2,093
TOTAL:	31,398

D 0,1,2

Row Crops	1,678
Small Grains	3,535
Sod Crops	6,433
Idle	8,142
Pasture	2,258
Fruit	639
Forest	13,762
Other Rural	4,554
TOTAL:	41,001

D 3,4,5

Row Crops	3,324
Small Grains	2,271
Sod Crops	9,129
Idle	6,842
Pasture	3,253
Forest	5,119
Other Rural	930
TOTAL:	30,868

E 0,1,2

Small Grains	216
Sod Crops	723
Idle	2,723
Pasture	2,098
Forest	6,720
Other Rural	1,056
TOTAL:	13,536

E 3,4,5

Row Crops	241
Small Grains	826
Sod Crops	2,126
Idle	1,717
Pasture	3,772
Forest	2,337
Other Rural	3,674
TOTAL:	14,693

F 0,1,2

Row Crops	190
Sod Crops	213
Idle	200
Pasture	406
Forest	5,158
Other Rural	1,026
TOTAL:	7,193

F 3,4,5

Small Grains	213
Sod Crops	684
Pasture	2,424
Forest	1,222
Other Rural	191
TOTAL:	4,734
GROUP TOTAL:	970,182

APPENDIX G (cont'd.)

3b

A 0,1,2

Row Crops	17,617
Small Grains	8,601
Sod Crops	8,025
Idle	2,107
Pasture	1,492
Forest	3,391
Other Rural	2,784
TOTAL:	44,017

B 0,1,2

Row Crops	11,837
Small Grains	7,661
Sod Crops	10,492
Idle	2,581
Pasture	1,259
Forest	8,709
Other Rural	3,143
TOTAL:	45,682
GROUP TOTAL:	89,698

3b-s

A 0,1,2

Row Crops	621
Small Grains	1,242
Sod Crops	615
Idle	402
Pasture	603
Forest	2,268
Other Rural	1,005
TOTAL:	6,756

B 0,1,2

Idle	210
GROUP TOTAL:	6,965

3c

A 0,1,2

Row Crops	6,257
Small Grains	5,825
Sod Crops	5,034
Idle	6,919
Pasture	5,232
Forest	23,174
Other Rural	2,299
TOTAL:	54,740

B 0,1,2

Row Crops	210
GROUP TOTAL:	54,951

3c-s

A 0,1,2

Row Crops	2,039
Small Grains	1,602
Sod Crops	1,935
Idle	1,340
Pasture	552
Forest	813
Other Rural	552
GROUP TOTAL:	8,834

3/1a

A 0,1,2

Row Crops	212
Small Grains	637
TOTAL:	849

B 0,1,2

Row Crops	2,513
Small Grains	1,071
Sod Crops	1,297
Forest	429
Other Rural	857
TOTAL:	6,167

C 0,1,2

Row Crops	212
Forest	212
TOTAL:	424

F 0,1,2

Forest	425
GROUP TOTAL:	7,867

3/1c

A 0,1,2

Row Crops	814
Small Grains	598
Sod Crops	867
Idle	999
Forest	431
Other Rural	212
TOTAL:	3,921

B 0,1,2

Row Crops	425
Small Grains	212
Sod Crops	410
Idle	212
Forest	414
TOTAL:	1,673
GROUP TOTAL:	5,595

3/2a

A 0,1,2

Row Crops	1,448
Small Grains	2,138
Sod Crops	1,291
Idle	1,089

APPENDIX G (cont'd.)

Pasture	222
Other Rural	222
TOTAL:	6,410
B 0,1,2	
Row Crops	14,642
Small Grains	13,966
Sod Crops	15,219
Idle	8,974
Pasture	2,132
Fruit	413
Forest	4,848
Other Rural	5,376
TOTAL:	65,570
B 3,4,5	
Sod Crops	427
C 0,1,2	
Row Crops	4,991
Small Grains	3,406
Sod Crops	5,766
Idle	1,482
Pasture	836
Forest	1,492
Other Rural	4,471
TOTAL:	22,444
C 3,4,5	
Row Crops	641
Small Grains	214
Sod Crops	641
Idle	217
Pasture	213
TOTAL:	1,926
D 0,1,2	
Small Grains	216
Sod Crops	432
Idle	836
Forest	1,067
TOTAL:	2,551
D 3,4,5	
Small Grains	213
Forest	427
TOTAL:	640
E 0,1,2	
Sod Crops	432
Forest	646
TOTAL:	1,078
F 0,1,2	
Forest	430
GROUP TOTAL:	101,476

3/2b

A 0,1,2	
Row Crops	7,991
Small Grains	3,544
Sod Crops	11,299
Idle	2,771
Pasture	1,033
Forest	3,539
Other Rural	2,601
TOTAL:	32,778
B 0,1,2	
Row Crops	1,661
Small Grains	2,939
Sod Crops	4,206
Idle	1,255
Pasture	1,011
Forest	787
Other Rural	1,880
TOTAL:	13,739
GROUP TOTAL:	46,517

3/2c

A 0,1,2	
Row Crops	1,686
Small Grains	1,288
Sod Crops	1,628
Idle	427
Pasture	420
Forest	651
Other Rural	217
TOTAL:	6,317
B 0,1,2	
Row Crops	210
GROUP TOTAL:	6,527

3/5a

A 0,1,2	
Row Crops	79,068
Small Grains	38,948
Sod Crops	60,797
Idle	15,078
Pasture	6,529
Fruit	1,316
Forest	10,549
Other Rural	15,638
TOTAL:	227,923
B 0,1,2	
Row Crops	113,074
Small Grains	62,318
Sod Crops	118,786
Idle	73,833
Pasture	21,484
Fruit	4,397
Forest	44,425

APPENDIX G (cont'd.)

Other Rural	34,948
TOTAL:	473,265
B 3,4,5	
Row Crops	207
Small Grains	448
Sod Crops	690
Forest	236
TOTAL:	1,581
C 0,1,2	
Row Crops	30,821
Small Grains	20,646
Sod Crops	51,530
Idle	30,608
Pasture	21,224
Fruit	2,526
Forest	31,591
Other Rural	15,133
TOTAL:	204,079
C 3,4,5	
Row Crops	3,269
Small Grains	6,307
Sod Crops	12,471
Idle	4,934
Pasture	2,294
Fruit	399
Forest	3,033
Other Rural	4,773
TOTAL:	37,480
D 0,1,2	
Row Crops	3,303
Small Grains	5,978
Sod Crops	17,589
Idle	9,915
Pasture	5,918
Fruit	216
Forest	27,051
Other Rural	3,207
TOTAL:	73,177
D 3,4,5	
Row Crops	3,012
Small Grains	3,915
Sod Crops	10,276
Idle	6,788
Pasture	7,463
Fruit	153
Forest	15,853
Other Rural	4,676
TOTAL:	52,136
E 0,1,2	
Row Crops	202
Small Grains	844
Sod Crops	2,277
Idle	4,187
Pasture	15,603
Forest	12,376
Other Rural	1,264
TOTAL:	36,753
E 3,4,5	
Row Crops	1,033
Small Grains	829
Sod Crops	6,709
Idle	4,842
Pasture	5,903
Forest	8,512
Other Rural	3,079
TOTAL:	30,907
F 0,1,2	
Sod Crops	413
Forest	8,601
Other Rural	1,076
TOTAL:	10,090
F 3,4,5	
Small Grains	203
Sod Crops	412
Pasture	601
Forest	1,048
Other Rural	444
TOTAL:	2,708
GROUP TOTAL:	1,150,095

3/5a-m

A 0,1,2	
Row Crops	15,766
Small Grains	6,871
Sod Crops	5,005
Idle	211
Forest	1,164
Other Rural	1,046
TOTAL:	30,063
B 0,1,2	
Row Crops	5,222
Small Grains	3,046
Sod Crops	8,776
Idle	610
Forest	1,537
Other Rural	435
TOTAL:	19,626
C 0,1,2	
Small Grains	399
Sod Crops	399

APPENDIX G (cont'd.)

Forest	238
TOTAL:	1,036
C 3,4,5	
Sod Crops	707
D 3,4,5	
Forest	222
GROUP TOTAL:	51,656

3/5b

A 0,1,2	
Row Crops	21,470
Small Grains	10,892
Sod Crops	15,726
Idle	7,512
Pasture	5,452
Forest	8,480
Other Rural	3,534
TOTAL:	73,066
B 0,1,2	
Row Crops	2,841
Small Grains	1.707
Sod Crops	2,167
Idle	841
Pasture	633
Forest	1,459
Other Total	219
TOTAL:	9,867
GROUP TOTAL:	82,933

3/5c

A 0,1,2	
Row Crops	21,843
Small Grains	8,526
Sod Crops	10,208
Idle	8,347
Pasture	6,568
Forest	34,220
Other Rural	8,387
TOTAL:	98,099
B 0,1,2	
Pasture	402
GROUP TOTAL:	98,501

3/Ra

A 0,1,2	
Row Crops	206
Sod Crops	206
Pasture	413
Forest	2,095
Other Rural	1,238
TOTAL:	4,158
B 0,1,2	
Row Crops	1,436
Sod Crops	413
Pasture	665
Forest	1,607
Other Rural	1,651
TOTAL:	5,772
C 0,1,2	
Row Crops	619
Sod Crops	619
Idle	206
Forest	404
Other Rural	413
TOTAL:	2,261
D 0,1,2	
Sod Crops	206
Forest	413
Other Rural	413
TOTAL:	1,032
D 3,4,5	
Forest	197
F 3,4,5	
Forest	619
GROUP TOTAL:	14,041

3/Rc

A 0,1,2	
Sod Crops	619
Pasture	413
GROUP TOTAL:	1,032

4a

AB 0,1,2	
Row Crops	74,064
Small Grains	45,486
Sod Crops	76,987
Idle	56,973
Pasture	29,143
Fruit	1,928
Forest	46,893
Other Rural	27,126
TOTAL:	358,600
AB 3,4,5	
Idle	1,491
Forest	1,065
TOTAL:	2,556
C 0,1,2	
Row Crops	15,002
Small Grains	11,363
Sod Crops	27,129
Idle	16,510

APPENDIX G (cont'd.)

Pasture	7,392
Fruit	2,121
Forest	29,112
Other Rural	7,181
TOTAL:	115,810
C 3,4,5	
Row Crops	1,275
Small Grains	625
Sod Crops	3,025
Idle	2,159
Pasture	1,929
Forest	5,286
TOTAL:	14,299
D 0,1,2	
Row Crops	1,045
Small Grains	1,436
Sod Crops	3,969
Idle	3,501
Pasture	4,172
Forest	14,801
Other Rural	4,209
TOTAL:	33,133
D 3,4,5	
Row Crops	1,481
Small Grains	800
Sod Crops	5,759
Idle	7,048
Pasture	3,775
Forest	3,005
Other Rural	1,867
TOTAL:	23,735
E 0,1,2	
Row Crops	426
Sod Crops	202
Idle	1,695
Pasture	434
Forest	9,502
TOTAL:	12,259
E 3,4,5	
Small Grains	266
Sod Crops	1,089
Idle	4,324
Pasture	3,266
Forest	2,129
Other Rural	1,053
TOTAL:	12,127
F 0,1,2	
Idle	201
Pasture	429
Forest	4,648
TOTAL:	5,278
F 3,4,5	
Sod Crops	639
Idle	414
Pasture	650
Forest	2,767
Other Rural	212
TOTAL:	4,682
GROUP TOTAL:	582,479
4b	
AB 0,1,2	
Row Crops	48,535
Small Grains	19,667
Sod Crops	29,107
Idle	18,937
Pasture	19,624
Forest	32,803
Other Rural	7,447
GROUP TOTAL:	176,121
4c	
AB 0,1,2	
Row Crops	17,145
Small Grains	5,176
Sod Crops	11,972
Idle	7,735
Pasture	11,487
Forest	57,930
Other Rural	4,531
GROUP TOTAL:	115,977
4/1a	
AB 0,1,2	
Forest	903
Other Rural	226
GROUP TOTAL:	1,129
4/1b	
AB 0,1,2	
Row Crops	8,327
Small Grains	4,009
Sod Crops	8,318
Idle	5,833
Pasture	1,650
Forest	4,120
Other Rural	2,314
GROUP TOTAL:	34,571
4/1c	
AB 0,1,2	
Row Crops	804

APPENDIX G (cont'd.)

Small Grains	1,255
Sod Crops	1,657
Idle	201
Pasture	402
Forest	1,129
GROUP TOTAL:	5,448

4/2a

AB 0,1,2

Row Crops	3,413
Small Grains	5,346
Sod Crops	4,668
Idle	2,669
Pasture	1,038
Fruit	814
Forest	4,729
Other Rural	1,537
TOTAL:	24,214

C 0,1,2

Row Crops	1,463
Small Grains	1,046
Sod Crops	636
Idle	1,060
Pasture	1,461
Forest	419
Other Rural	426
TOTAL:	6,511

C 3,4,5

Forest	628
Other Rural	1,065
TOTAL:	1,693

D 0,1,2

Row Crops	182
Small Grains	182
Idle	206
Pasture	202
Forest	852
Other Rural	829
TOTAL:	2,453

D 3,4,5

Sod Crops	213
Pasture	395
Forest	395
TOTAL:	1,003

E 3,4,5

Idle	1,009
Pasture	202
Forest	202
TOTAL:	1,413
GROUP TOTAL:	37,285

4/2b

AB 0,1,2

Row Crops	9,143
Small Grains	7,140
Sod Crops	5,953
Idle	3,181
Pasture	2,480
Forest	9,577
Other Rural	2,535
GROUP TOTAL:	40,008

4/2b-s

AB 0,1,2

Row Crops	611
Small Grains	204
GROUP TOTAL:	814

4/2c

AB 0,1,2

Row Crops	3,071
Small Grains	1,062
Sod Crops	1,264
Idle	5,032
Pasture	1,676
Fruit	407
Forest	14,293
Other Rural	829
GROUP TOTAL:	27,634

5a

AB 0,1,2

Row Crops	7,210
Small Grains	6,422
Sod Crops	11,856
Idle	10,654
Pasture	2,038
Forest	36,548
Other Rural	6,487
TOTAL:	81,215

AB 3,4,5

Idle	736
Forest	1,007
Other Rural	184
TOTAL:	1,927

C 0,1,2

Row Crops	2,112
Small Grains	638
Sod Crops	3,611
Idle	1,057
Pasture	2,786

APPENDIX G (cont'd.)

Forest	6,126
TOTAL:	16,330
C 3,4,5	
Row Crops	213
Idle	1,637
Pasture	202
Forest	1,688
Other Rural	184
TOTAL:	3,924
D 0,1,2	
Sod Crops	212
Idle	615
Pasture	1,445
Forest	3,997
Other Rural	423
TOTAL:	6,692
D 3,4,5	
Row Crops	665
Small Grains	426
Sod Crops	426
Idle	844
Pasture	206
Forest	406
Other Rural	222
TOTAL:	3,195
E 0,1,2	
Sod Crops	213
Idle	206
Pasture	225
Forest	2,825
TOTAL:	3,469
E 3,4,5	
Forest	1,278
F 3,4,5	
Other Rural	213
GROUP TOTAL:	118,243

5b

AB 0,1,2	
Row Crops	12,434
Small Grains	4,227
Sod Crops	6,212
Idle	13,542
Pasture	3,783
Fruit	368
Forest	36,203
Other Rural	7,949
TOTAL:	84,718
AB 3,4,5	
Forest	368
GROUP TOTAL:	85,086

5b-h

AB 0,1,2	
Row Crops	813
Small Grains	634
Idle	423
Pasture	214
Forest	4,111
Other Rural	200
GROUP TOTAL:	6,395

5c

AB 0,1,2	
Row Crops	15,675
Small Grains	9,755
Sod Crops	10,417
Idle	27,170
Pasture	6,057
Fruit	385
Forest	87,399
Other Rural	8,472
GROUP TOTAL:	165,331

5c-a

AB 0,1,2	
Sod Crops	413
Idle	427
Forest	427
GROUP TOTAL:	1,268

5/2a

AB 0,1,2	
Row Crops	4,439
Small Grains	2,260
Sod Crops	6,928
Idle	5,535
Pasture	2,307
Forest	10,468
Other Rural	1,483
TOTAL:	33,420
C 0,1,2	
Row Crops	1,249
Small Grains	212
Sod Crops	843
Idle	662
Pasture	625
Forest	1,913
Other Rural	202
TOTAL:	5,706
D 0,1,2	
Sod Crops	216
D 3,4,5	
Sod Crops	404

APPENDIX G (cont'd.)

Idle	212
TOTAL:	616
F 3,4,5	
Forest	213
GROUP TOTAL:	40,171

5/2b

AB 0,1,2	
Row Crops	3,493
Small Grains	2,071
Sod Crops	2,542
Idle	1,506
Pasture	603
Fruit	629
Forest	3,642
Other Rural	830
TOTAL:	15,316
AB 3,4,5	
Forest	425
GROUP TOTAL:	15,741

5.3a

AB 0,1,2	
Row Crops	15,505
Small Grains	8,510
Sod Crops	23,756
Idle	15,970
Pasture	3,541
Fruit	608
Forest	86,147
Other Rural	20,010
TOTAL:	174,047
AB 3,4,5	
Idle	1,161
Pasture	184
Forest	1,485
Other Rural	404
TOTAL:	3,234
C 0,1,2	
Row Crops	2,962
Small Grains	1,867
Sod Crops	3,781
Idle	7,952
Pasture	1,271
Forest	19,922
Other Rural	2,081
TOTAL:	39,836
C 3,4,5	
Row Crops	419
Small Grains	639
Sod Crops	214
Idle	1,621
Pasture	426
Forest	5,060
Other Rural	2,617
TOTAL:	10,996
D 0,1,2	
Sod Crops	457
Idle	3,994
Pasture	433
Fruit	1,857
Forest	14,170
Other Rural	2,772
TOTAL:	23,683
D 3,4,5	
Small Grains	213
Sod Crops	425
Idle	2,500
Pasture	200
Forest	6,200
Other Rural	202
TOTAL:	9,740
E 0,1,2	
Sod Crops	417
Idle	1,070
Pasture	213
Forest	9,349
Other Rural	1,490
TOTAL:	12,539
E 3,4,5	
Sod Crops	443
Idle	1,020
Pasture	202
Forest	2,758
Other Rural	860
TOTAL:	5,283
F 0,1,2	
Sod Crops	404
Forest	7,127
Other Rural	207
TOTAL:	7,738
F 3,4,5	
Forest	2,741
Other Rural	482
TOTAL:	3,223
G 0,1,2	
Forest	368
GROUP TOTAL:	290,685

5.7a

AB 0,1,2	
Row Crops	1,260
Small Grains	1,050
Sod Crops	1,680

APPENDIX G (cont'd.)

Idle	2,940
Forest	19,951
Other Rural	630
TOTAL:	27,511
AB 3,4,5	
Forest	3,613
C 0,1,2	
Row Crops	1,050
Small Grains	2,100
Sod Crops	2,310
Idle	2,520
Forest	13,759
Other Rural	607
TOTAL:	22,346
D 0,1,2	
Forest	1,366
F 0,1,2	
Pasture	184
Forest	736
TOTAL:	920
G 0,1,2	
Forest	2,760
GROUP TOTAL:	58,517

L-2a

A 0,1,2	
Small Grains	213
Sod Crops	1,065
Pasture	213
Forest	1,279
Other Rural	1,419
TOTAL:	4,189
B 0,1,2	
Small Grains	399
Sod Crops	640
Idle	190
Forest	427
Other Rural	637
TOTAL:	2,293
GROUP TOTAL:	6,483

L-2bc

A 0,1,2	
Row Crops	20,692
Small Grains	17,439
Sod Crops	18,742
Idle	12,409
Pasture	17,052
Fruit	213
Forest	76,815
Other Rural	25,403
TOTAL:	188,765
B 0,1,2	
Row Crops	1,696
Small Grains	3,369
Sod Crops	1,491
Idle	1,063
Pasture	3,165
Fruit	425
Forest	7,959
Other Rural	423
TOTAL:	19,591
C 0,1,2	
Idle	426
GROUP TOTAL:	208,783

L-4a

A 0,1,2	
Small Grains	204
Sod Crops	225
Idle	225
Pasture	854
Forest	2,937
Other Rural	204
TOTAL:	4,649
B 0,1,2	
Small Grains	212
Sod Crops	426
Idle	415
Pasture	1,424
Forest	4,778
TOTAL:	7,255
C 0,1,2	
Row Crops	212
Small Grains	212
Forest	1,487
TOTAL:	1,911
GROUP TOTAL:	13,815

L-4bc

A 0,1,2	
Row Crops	211
Idle	423
Pasture	1,030
Forest	10,520
Other Rural	410
TOTAL:	12,594
B 0,1,2	
Pasture	213
Forest	1,485
TOTAL:	1,698
GROUP TOTAL:	14,293

APPENDIX G (cont'd.)

L-Mc	
A 0,1,2	
Row Crops	213
Sod Crops	640
Idle	397
Pasture	1,898
Forest	9,602
Other Rural	3,392
TOTAL:	16,142
B 0,1,2	
Forest	202
GROUP TOTAL:	16,344
Mc	
A 0,1,2	
Row Crops	56,526
Small Grains	12,753
Sod Crops	29,782
Idle	45,526
Pasture	49,804
Fruit	413
Forest	277,992
Other Rural	110,688
TOTAL:	583,484
A 3,4,5	
Pasture	826
Forest	1,238
Other Rural	3,096
TOTAL:	5,160
B 0,1,2	
Idle	439
Forest	1,086
Other Rural	1,272
TOTAL:	2,797
D 0,1,2	
Forest	200
GROUP TOTAL:	591,641
Mc-a	
A 0,1,2	
Sod Crops	212
Idle	212
Forest	4,381
Other Rural	3,344
GROUP TOTAL:	8,148
M/1c	
A 0,1,2	
Small Grains	432
Sod Crops	1,305
Pasture	413
Forest	434
GROUP TOTAL:	2,584
M/3c	
A 0,1,2	
Row Crops	1,278
Small Grains	432
Sod Crops	4,172
Idle	1,313
Pasture	4,350
Forest	3,160
Other Rural	2,969
GROUP TOTAL:	17,673
M/4c	
A 0,1,2	
Row Crops	7,261
Small Grains	1,476
Sod Crops	2,964
Idle	5,204
Pasture	6,584
Forest	17,567
Other Rural	11,686
GROUP TOTAL:	52,742
M/mc	
A 0,1,2	
Row Crops	5,391
Small Grains	639
Sod Crops	1,864
Idle	2,385
Pasture	217
Forest	10,400
Other Rural	7,378
GROUP TOTAL:	28,275
Ga	
C 0,1,2	
Forest	217
E 0,1,2	
Forest	217
GROUP TOTAL:	434
LRA TOTAL:	7,819,067

APPENDIX H

Land Use By SMU In LRA 99

Miscellaneous	
A 0,1,2	
Forest	652
Undetermined	18,109
GROUP TOTAL:	18,761
0c	
A 0,1,2	
Row Crops	7,780
Small Grains	217
Sod Crops	1,050
Other Rural	217
GROUP TOTAL:	9,263
1a	
A 0,1,2	
Row Crops	1,349
Sod Crops	225
Idle	225
Other Rural	450
TOTAL:	2,249
B 0,1,2	
Small Grains	217
Forest	450
TOTAL:	667
C 0,1,2	
Row Crops	431
Sod Crops	217
TOTAL:	648
C 3,4,5	
Row Crops	217
D 3,4,5	
Idle	450
E 0,1,2	
Forest	674
GROUP TOTAL:	4,902
1b	
A 0,1,2	
Row Crops	29,989
Small Grains	9,414
Sod Crops	9,853
Idle	11,036
Pasture	4,553
Forest	12,883
Other Rural	2,809
TOTAL:	80,537
B 0,1,2	
Row Crops	3,065
Small Grains	5,545
Sod Crops	3,112
Idle	2,892
Pasture	1,083
Fruit	1,125
Forest	3,827
Other Rural	900
TOTAL:	21,549
GROUP TOTAL:	102,087
1c	
A 0,1,2	
Row Crops	53,003
Small Grains	14,964
Sod Crops	12,766
Idle	15,351
Pasture	442
Forest	12,278
Other Rural	3,103
TOTAL:	111,907
B 0,1,2	
Row Crops	204
Sod Crops	204
TOTAL:	408
GROUP TOTAL:	112,313
1,5a	
A 0,1,2	
Row Crops	2,670
Small Grains	409
Sod Crops	1,311
Idle	668
Pasture	652
Forest	652
TOTAL:	6,362
B 0,1,2	
Row Crops	13,248
Small Grains	13,941
Sod Crops	17,021
Idle	5,602
Pasture	1,770
Fruit	1,317
Forest	1,980
Other Rural	2,885
TOTAL:	57,764

APPENDIX H (cont'd.)

B 3,4,5	
Idle	225
C 0,1,2	
Row Crops	1,044
Small Grains	1,907
Sod Crops	1,117
Idle	1,200
Pasture	857
Forest	2,803
TOTAL:	8,928
C 3,4,5	
Sod Crops	225
Idle	450
TOTAL:	675
D 0,1,2	
Pasture	217
Other Rural	214
TOTAL:	431
D 3,4,5	
Idle	225
Other Rural	195
TOTAL:	420
E 0,1,2	
Forest	229
E 3,4,5	
Row Crops	225
Small Grains	225
Sod Crops	225
Idle	450
Pasture	450
Forest	225
TOTAL:	1,800
F 0,1,2	
Forest	4,715
Other Rural	457
TOTAL:	5,172
F 3,4,5	
Idle	225
Pasture	225
Forest	1,075
Other Rural	225
TOTAL:	1,750
GROUP TOTAL:	83,755

1.5b

A 0,1,2	
Row Crops	130,031
Small Grains	48,664
Sod Crops	25,458
Idle	5,542
Pasture	3,085
Fruit	153
Forest	8,817
Other Rural	14,095
TOTAL:	235,845
B 0,1,2	
Row Crops	15,381
Small Grains	6,637
Sod Crops	7,944
Idle	3,056
Pasture	641
Forest	5,417
Other Rural	2,499
TOTAL:	41,575
GROUP TOTAL:	277,419

1.5c

A 0,1,2	
Row Crops	193,975
Small Grains	92,036
Sod Crops	54,066
Idle	28,122
Pasture	8,139
Fruit	195
Forest	38,130
Other Rural	25,579
TOTAL:	440,242
B 0,1,2	
Row Crops	545
Forest	182
Other Rural	217
TOTAL:	944
GROUP TOTAL:	441,184

2.5a

A 0,1,2	
Row Crops	4,606
Small Grains	3,781
Sod Crops	7,584
Idle	210
Other Rural	2,035
TOTAL:	18,216
B 0,1,2	
Row Crops	36,708
Small Grains	21,406
Sod Crops	20,310
Idle	4,838
Pasture	1,247
Fruit	427
Forest	4,452
Other Rural	4,822
TOTAL:	94,210
C 0,1,2	
Row Crops	11,326
Small Grains	10,002

APPENDIX H (cont'd.)

Sod Crops	11,555
Idle	3,601
Fruit	214
Forest	2,303
Other Rural	2,056
TOTAL:	41,057
C 3,4,5	
Row Crops	845
Small Grains	2,090
Sod Crops	1,275
Idle	430
Fruit	427
TOTAL:	5,067
D 0,1,2	
Row Crops	220
Small Grains	220
Sod Crops	225
Idle	2,163
Pasture	1,050
Forest	440
Other Rural	430
TOTAL:	4,748
D 3,4,5	
Row Crops	1,537
Sod Crops	649
Fruit	427
Other Rural	621
TOTAL:	3,234
E 0,1,2	
Sod Crops	220
Forest	881
Other Rural	399
TOTAL:	1,500
E 3,4,5	
Row Crops	225
Pasture	225
Other Rural	225
TOTAL:	675
GROUP TOTAL:	168,709

2.5a-s	
A 0,1,2	
Row Crops	217
B 0,1,2	
Row Crops	651
Sod Crops	217
Idle	363
Fruit	363
Forest	762
TOTAL:	2,356
GROUP TOTAL:	2,573

2.5b	
A 0,1,2	
Row Crops	171,733
Small Grains	95,367
Sod Crops	67,485
Idle	24,824
Pasture	8,285
Fruit	592
Forest	13,583
Other Rural	31,196
TOTAL:	413,065
B 0,1,2	
Row Crops	40,393
Small Grains	38,217
Sod Crops	25,137
Idle	6,766
Pasture	2,740
Fruit	855
Forest	7,073
Other Rural	5,541
TOTAL:	126,722
GROUP TOTAL:	539,786

2.5b-a	
A 0,1,2	
Row Crops	217

2.5b-s	
A 0,1,2	
Row Crops	32,729
Small Grains	13,161
Sod Crops	13,402
Idle	2,950
Pasture	2,716
Fruit	191
Forest	8,271
Other Rural	3,342
TOTAL:	76,762
B 0,1,2	
Row Crops	8,191
Small Grains	2,610
Sod Crops	5,731
Idle	1,239
Pasture	210
Forest	1,793
Other Rural	1,074
TOTAL:	20,902
GROUP TOTAL:	97,662

2.5b-cs	
A 0,1,2	
Row Crops	1,050
Small Grains	840

APPENDIX H (cont'd.)

Sod Crops	1,681
Pasture	210
Forest	210
Other Rural	210
GROUP TOTAL:	4,201

2.5c

A 0,1,2

Row Crops	199,227
Small Grains	101,765
Sod Crops	86,834
Idle	15,896
Pasture	14,067
Fruit	236
Forest	43,285
Other Rural	24,663
TOTAL:	485,973

B 0,1,2

Row Crops	210
Small Grains	210
Sod Crops	210
Forest	225
Other Rural	385
TOTAL:	1,240
GROUP TOTAL:	487,214

2.5c-c

A 0,1,2

Row Crops	44,299
Small Grains	8,454
Sod Crops	3,286
Idle	236
Forest	1,521
Other Rural	13,322
GROUP TOTAL:	71,118

2.5c-s

A 0,1,2

Row Crops	19,740
Small Grains	5,327
Sod Crops	4,165
Idle	1,767
Pasture	210
Fruit	182
Forest	7,171
Other Rural	2,376
TOTAL:	40,938

B 0,1,2

Row Crops	675
Small Grains	450
Forest	675
TOTAL:	1,800
GROUP TOTAL:	42,739

3a

A 0,1,2

Row Crops	5,045
Small Grains	4,119
Sod Crops	2,854
Idle	2,329
Pasture	153
Forest	984
Other Rural	1,525
TOTAL:	17,009

B 0,1,2

Row Crops	3,861
Small Grains	3,375
Sod Crops	4,087
Idle	363
Forest	4,867
Other Rural	1,705
TOTAL:	18,258

C 0,1,2

Row Crops	1,451
Small Grains	1,274
Sod Crops	2,073
Idle	153
Pasture	637
Fruit	482
Forest	840
Other Rural	604
TOTAL:	7,514

C 3,4,5

Row Crops	225
Idle	225
TOTAL:	450

D 0,1,2

Row Crops	420
Forest	420
TOTAL:	840

E 3,4,5

Other Rural	200
GROUP TOTAL:	44,271

3b

A 0,1,2

Row Crops	2,729
Small Grains	1,465
Sod Crops	844
Idle	1,495
Forest	3,998
TOTAL:	10,531

B 0,1,2

Row Crops	1,515
Small Grains	644
Sod Crops	210
Pasture	210

APPENDIX H (cont'd.)

Forest	217
TOTAL:	2,796
GROUP TOTAL:	13,327

3b-s

A 0,1,2	
Sod Crops	217
Forest	652
Other Rural	217
TOTAL:	1,086
B 0,1,2	
Small Grains	434
Sod Crops	217
TOTAL:	651
GROUP TOTAL:	1,738

3c

A 0,1,2	
Row Crops	457
Small Grains	195
Sod Crops	440
Pasture	217
Forest	2,190
GROUP TOTAL:	3,498

3c-s

A 0,1,2	
Row Crops	1,050
Small Grains	4,425
Sod Crops	2,318
Idle	210
Forest	1,905
Other Rural	637
GROUP TOTAL:	10,546

3/1c

A 0,1,2	
Row Crops	24,031
Small Grains	7,636
Sod Crops	10,053
Idle	5,678
Pasture	1,053
Forest	7,290
Other Rural	3,608
TOTAL:	59,349
B 0,1,2	
Idle	450
GROUP TOTAL	59,798

3/2a

A 0,1,2	
Row Crops	5,874
Small Grains	2,476
Sod Crops	4,344
Idle	457
Fruit	191
Forest	869
Other Rural	1,389
TOTAL:	15,600
B 0,1,2	
Row Crops	2,955
Small Grains	3,308
Sod Crops	2,335
Idle	881
Pasture	660
Fruit	220
Other Rural	657
TOTAL:	11,016
C 0,1,2	
Row Crops	1,024
Small Grains	1,101
Sod Crops	440
Idle	894
Other Rural	220
TOTAL:	3,679
D 0,1,2	
Row Crops	440
GROUP TOTAL:	30,735

3/2b

A 0,1,2	
Row Crops	57,407
Small Grains	16,691
Sod Crops	13,564
Idle	8,899
Pasture	1,495
Fruit	577
Forest	9,385
Other Rural	6,831
TOTAL:	114,849
B 0,1,2	
Row Crops	2,667
Small Grains	6,060
Sod Crops	2,203
Idle	1,276
Fruit	881
Forest	803
Other Rural	1,413
TOTAL:	15,303
GROUP TOTAL:	130,153

3/2c

A 0,1,2	
Row Crops	27,141

APPENDIX H (cont'd.)

Small Grains	15,803
Sod Crops	3,284
Idle	2,029
Pasture	881
Forest	7,048
Other Rural	3,262
TOTAL:	59,448
B 0,1,2	
Row Crops	836
Sod Crops	225
Idle	225
TOTAL:	1,286
GROUP TOTAL:	60,732
3/5a	
A 0,1,2	
Row Crops	895
Small Grains	1,086
Idle	641
Pasture	450
Forest	817
TOTAL:	3,889
B 0,1,2	
Row Crops	4,813
Small Grains	3,116
Sod Crops	1,425
Idle	645
Pasture	204
Forest	801
Other Rural	847
TOTAL:	11,851
C 0,1,2	
Row Crops	860
Small Grains	220
Sod Crops	220
Forest	641
TOTAL:	1,941
E 0,1,2	
Forest	225
GROUP TOTAL:	17,905
3/5b	
A 0,1,2	
Row Crops	6,292
Small Grains	2,447
Sod Crops	1,146
Idle	624
Pasture	818
Forest	2,218
Other Rural	458
TOTAL:	14,003
B 0,1,2	
Row Crops	881
Small Grains	881
Idle	653
Forest	217
TOTAL:	2,632
GROUP TOTAL:	16,634
3/5c	
A 0,1,2	
Row Crops	4,171
Small Grains	1,761
Sod Crops	220
Idle	1,186
Pasture	852
Forest	1,290
Other Rural	373
GROUP TOTAL:	9,853
3/Ra	
A 0,1,2	
Idle	191
Pasture	382
Forest	870
TOTAL:	1,443
B 0,1,2	
Forest	435
C 0,1,2	
Forest	652
GROUP TOTAL:	2,530
3/Rbc	
A 0,1,2	
Row Crops	220
4a	
AB 0,1,2	
Row Crops	13,604
Small Grains	7,690
Sod Crops	8,117
Idle	4,681
Pasture	1,668
Forest	4,026
Other Rural	4,594
TOTAL:	44,380
AB 3,4,5	
Small Grains	214
Idle	214
Other Rural	641
TOTAL:	1,069
C 0,1,2	
Row Crops	1,878
Small Grains	220
Sod Crops	440
Idle	1,195

APPENDIX H (cont'd.)

Pasture	434
Forest	1,871
Other Rural	1,266
TOTAL:	7,304
C 3,4,5	
Sod Crops	204
Other Rural	204
TOTAL:	408
D 0,1,2	
Row Crops	420
Idle	220
TOTAL:	640
D 3,4,5	
Sod Crops	214
Idle	407
TOTAL:	621
E 0,1,2	
Forest	204
E 3,4,5	
Idle	1,832
Forest	624
Other Rural	204
TOTAL:	2,660
F 3,4,5	
Idle	204
Forest	611
TOTAL:	815
GROUP TOTAL:	58,099

4b

AB 0,1,2	
Row Crops	58,135
Small Grains	19,607
Sod Crops	14,183
Idle	12,114
Pasture	2,962
Fruit	420
Forest	12,660
Other Rural	5,325
GROUP TOTAL:	125,405

4c

AB 0,1,2	
Row Crops	14,849
Small Grains	6,999
Sod Crops	5,069
Idle	5,086
Pasture	2,811
Forest	26,709
Other Rural	2,082
GROUP TOTAL:	63,605

4/1a

E 3,4,5	
Forest	217

4/1b

AB 0,1,2	
Row Crops	17,845
Small Grains	11,043
Sod Crops	12,342
Idle	14,087
Pasture	3,514
Fruit	1,801
Forest	10,402
Other Rural	6,726
GROUP TOTAL:	77,760

4/1c

AB 0,1,2	
Row Crops	2,916
Small Grains	2,229
Sod Crops	869
Pasture	1,623
Forest	3,442
GROUP TOTAL:	11,079

4/2a

AB 0,1,2	
Row Crops	2,572
Small Grains	726
Sod Crops	1,000
Idle	3,975
Pasture	217
Forest	1,449
Other Rural	1,453
TOTAL:	11,392
C 0,1,2	
Row Crops	617
Small Grains	855
Sod Crops	1,085
Idle	440
Pasture	236
Forest	637
Other Rural	558
TOTAL:	4,428
C 3,4,5	
Idle	217
D 0,1,2	
Row Crops	195
GROUP TOTAL:	16,232

APPENDIX H (cont'd.)

4/2b

AB 0,1,2

Row Crops	43,797
Small Grains	17,066
Sod Crops	24,253
Idle	10,530
Pasture	5,752
Fruit	386
Forest	27,697
Other Rural	9,460
GROUP TOTAL:	138,942

4/2b-s

AB 0,1,2

Row Crops	2,259
Small Grains	1,222
Sod Crops	834
Idle	3,321
Pasture	433
Forest	1,381
Other Rural	1,376
GROUP TOTAL:	10,827

4/2c

AB 0,1,2

Row Crops	21,700
Small Grains	8,205
Sod Crops	6,275
Idle	8,367
Pasture	3,376
Fruit	195
Forest	18,876
Other Rural	2,990
GROUP TOTAL:	69,984

4/2c-c

AB 0,1,2

Row Crops	5,306
Small Grains	584
Idle	471
Other Rural	195
GROUP TOTAL:	6,556

5a

AB 0,1,2

Row Crops	195
Small Grains	801
Idle	214
Pasture	867
Forest	5,421
Other Rural	204
TOTAL:	7,702

C 0,1,2

Row Crops	217
Pasture	435
Forest	2,392
Other Rural	434
TOTAL:	3,478

C 3,4,5

Forest	435

D 3,4,5

Forest	1,087

E 0,1,2

Pasture	217

E 3,4,5

Forest	600
GROUP TOTAL:	13,518

5b

AB 0,1,2

Row Crops	20,835
Small Grains	6,385
Sod Crops	9,554
Idle	16,215
Pasture	4,539
Fruit	191
Forest	70,160
Other Rural	14,477
GROUP TOTAL:	142,357

5b-h

AB 0,1,2

Row Crops	436
Small Grains	195
Idle	1,299
Pasture	650
Forest	3,825
Other Rural	195
GROUP TOTAL:	6,598

5c

AB 0,1,2

Row Crops	13,538
Small Grains	5,715
Sod Crops	7,675
Idle	24,401
Pasture	1,212
Forest	144,516
Other Rural	15,359
GROUP TOTAL:	212,415

5c-a

AB 0,1,2

Sod Crops	389

APPENDIX H (cont'd.)

Idle	2,051
Forest	5,677
GROUP TOTAL:	8,117

5/2a

AB 0,1,2

Row Crops	4,007
Small Grains	2,764
Sod Crops	3,118
Idle	1,948
Pasture	1,072
Forest	4,023
Other Rural	2,718
TOTAL:	19,650

C 0,1,2

Row Crops	363
Small Grains	363
Idle	389
Pasture	210
Other Rural	182
TOTAL:	1,507

C 3,4,5

Row Crops	204

D 0,1,2

Forest	195
GROUP TOTAL:	21,556

5/2b

AB 0,1,2

Row Crops	8,674
Small Grains	5,449
Sod Crops	2,996
Idle	7,207
Pasture	1,280
Fruit	195
Forest	30,009
Other Rural	2,801
GROUP TOTAL:	58,610

5.3a

AB 0,1,2

Row Crops	4,516
Small Grains	3,339
Sod Crops	3,618
Idle	7,830
Pasture	3,906
Fruit	195
Forest	39,454
Other Rural	7,081
TOTAL:	69,939

AB 3,4,5

Row Crops	580
Idle	1,068
Forest	3,321
TOTAL:	4,969

C 0,1,2

Row Crops	686
Small Grains	997
Sod Crops	195
Idle	427
Pasture	835
Forest	5,828
Other Rural	1,501
TOTAL:	10,469

C 3,4,5

Small Grains	195
Pasture	647
Forest	1,847
Other Rural	1,049
TOTAL:	3,738

D 0,1,2

Forest	420

D 3,4,5

Forest	210
Other Rural	214
TOTAL:	424

F 3,4,5

Forest	450
GROUP TOTAL:	90,407

5.7a

AB 0,1,2

Pasture	652
Forest	1,522
GROUP TOTAL:	2,174

L-2a

A 0,1,2

Row Crops	3,461
Small Grains	1,365
Sod Crops	670
Idle	2,473
Pasture	1,101
Forest	5,433
Other Rural	1,583
TOTAL:	16,086

B 0,1,2

Row Crops	1,095
Small Grains	210
Sod Crops	450
Pasture	900
Forest	4,212
TOTAL:	6,867
GROUP TOTAL:	22,954

APPENDIX H (cont'd.)

L-2c	
A 0,1,2	
Row Crops	13,530
Small Grains	5,420
Sod Crops	6,428
Idle	3,640
Pasture	9,532
Forest	39,958
Other Rural	16,871
TOTAL:	95,379
B 0,1,2	
Small Grains	195
Other Rural	214
TOTAL:	409
GROUP TOTAL:	95,787
L-4a	
A 0,1,2	
Sod Crops	450
Forest	1,299
GROUP TOTAL:	1,749
L-4c	
A 0,1,2	
Row Crops	204
Forest	814
GROUP TOTAL:	1,018
L-Mc	
A 0,1,2	
Forest	652
Mc	
A 0,1,2	
Row Crops	11,471
Small Grains	6,703
Sod Crops	1,914
Idle	6,951
Pasture	2,822
Forest	13,633
Other Rural	2,621
GROUP TOTAL:	46,115
Mc-a	
A 0,1,2	
Row Crops	651
Fruit	1,085
Forest	868
Other Rural	434
GROUP TOTAL:	3,038
M/1c	
A 0,1,2	
Row Crops	796
Idle	407
Forest	840
GROUP TOTAL:	2,044
M/3c	
A 0,1,2	
Row Crops	4,059
Small Grains	1,471
Sod Crops	2,387
Idle	3,120
Pasture	420
Forest	7,314
Other Rural	644
GROUP TOTAL:	19,414
M/4c	
A 0,1,2	
Row Crops	7,757
Sod Crops	434
Idle	1,101
Pasture	660
Forest	7,821
Other Rural	2,479
TOTAL:	20,252
B 0,1,2	
Row Crops	182
Sod Crops	182
TOTAL:	364
GROUP TOTAL:	20,616
M/Mc	
A 0,1,2	
Row Crops	648
Pasture	5,871
Forest	1,709
GROUP TOTAL:	8,227
Gbc	
A 0,1,2	
Row Crops	1,349
Idle	899
GROUP TOTAL:	2,248
LRA TOTAL:	4,224,167

APPENDIX I

Land Use By SMU In LRA 111

Miscellaneous	
A 0,1,2	
Row Crops	395
Sod Crops	411
Forest	1,382
GROUP TOTAL:	2,189
1a	
C 0,1,2	
Row Crops	411
D 0,1,2	
Row Crops	206
Fruit	617
Other Rural	411
TOTAL:	1,234
D 3,4,5	
Sod Crops	225
GROUP TOTAL:	1,870
1b	
A 0,1,2	
Row Crops	9,571
Small Grains	1,889
Sod Crops	1,966
Forest	1,686
Other Rural	601
TOTAL:	15,713
B 0,1,2	
Row Crops	1,440
Small Grains	1,645
Sod Crops	1,028
Fruit	411
Forest	197
Other Rural	411
TOTAL:	5,132
GROUP TOTAL:	20,846
1c	
A 0,1,2	
Row Crops	14,117
Small Grains	5,142
Sod Crops	2,879
Forest	2,871
Other Rural	1,028
GROUP TOTAL:	26,037
1.5a	
A 0,1,2	
Row Crops	1,889
Sod Crops	861
Other Rural	225
TOTAL:	2,975
B 0,1,2	
Row Crops	42,113
Small Grains	17,524
Sod Crops	4,826
Idle	1,573
Pasture	2,449
Fruit	225
Forest	7,448
Other Rural	2,833
TOTAL:	78,991
C 0,1,2	
Row Crops	17,168
Small Grains	3,554
Sod Crops	3,778
Pasture	3,480
Fruit	206
Forest	4,040
Other Rural	1,023
TOTAL:	33,249
C 3,4,5	
Row Crops	2,024
Small Grains	411
Sod Crops	225
Idle	899
Pasture	197
Forest	411
TOTAL:	4,167
D 0,1,2	
Row Crops	1,012
Small Grains	225
Pasture	395
Idle	197
Forest	601
TOTAL:	2,430
D 3,4,5	
Row Crops	1,209
Small Grains	411
Sod Crops	225
Pasture	395
Forest	206
Other Rural	197
TOTAL:	2,643
E 0,1,2	
Pasture	790
Forest	197
TOTAL:	987

APPENDIX I (cont'd.)

E 3,4,5	
Pasture	197
F 0,1,2	
Forest	592
F 3,4,5	
Pasture	197
GROUP TOTAL:	126,429
1.5b	
A 0,1,2	
Row Crops	22,658
Small Grains	5,391
Sod Crops	4,190
Pasture	229
Fruit	206
Forest	2,715
Other Rural	651
TOTAL:	36,040
B 0,1,2	
Row Crops	21,983
Small Grains	7,404
Sod Crops	1,645
Pasture	197
Forest	2,032
Other Rural	806
TOTAL:	34,067
GROUP TOTAL:	70,106
1.5c	
A 0,1,2	
Row Crops	19,054
Small Grains	5,188
Sod Crops	2,300
Idle	1,349
Pasture	1,709
Forest	7,212
Other Rural	1,237
GROUP TOTAL:	38,049
2.5a	
A 0,1,2	
Sod Crops	225
B 0,1,2	
Row Crops	9,729
Small Grains	2,114
Sod Crops	5,242
Idle	1,607
Pasture	1,031
Forest	1,832
Other Rural	1,212
TOTAL:	22,767
C 0,1,2	
Row Crops	8,636
Small Grains	2,262
Sod Crops	4,593
Idle	1,015
Pasture	1,637
Forest	5,015
Other Rural	1,818
TOTAL:	24,976
C 3,4,5	
Row Crops	422
Sod Crops	899
Other Rural	197
TOTAL:	1,518
D 0,1,2	
Row Crops	617
Small Grains	823
Forest	197
TOTAL:	1,637
D 3,4,5	
Pasture	395
E 0,1,2	
Sod Crops	197
Pasture	197
Forest	790
TOTAL:	1,184
E 3,4,5	
Pasture	987
F 0,1,2	
Pasture	197
F 3,4,5	
Pasture	197
GROUP TOTAL:	54,087
2.5b	
A 0,1,2	
Row Crops	2,830
Small Grains	206
Sod Crops	430
Idle	395
Forest	225
TOTAL:	4,086
B 0,1,2	
Row Crops	5,538
Small Grains	842
Idle	1,015
Pasture	592
Forest	1,185
Other Rural	197
TOTAL:	9,369
GROUP TOTAL:	13,455
2.5b-s	
A 0,1,2	
Row Crops	655

APPENDIX I (cont'd.)

B 0,1,2	
Row Crops	1,185
Other Rural	197
TOTAL:	1,382
GROUP TOTAL:	2,038
2.5c	
A 0,1,2	
Row Crops	5,934
Small Grains	3,291
Sod Crops	4,535
Pasture	1,226
Fruit	206
Forest	5,709
Other Rural	206
TOTAL:	21,107
B 0,1,2	
Row Crops	197
Forest	197
TOTAL:	394
GROUP TOTAL:	21,502
2.5c-s	
A 0,1,2	
Row Crops	6,279
Small Grains	3,291
Sod Crops	1,440
Forest	592
Other Rural	411
GROUP TOTAL:	12,013
3a	
A 0,1,2	
Pasture	197
B 0,1,2	
Row Crops	6,320
Idle	2,567
Pasture	1,185
Forest	395
Other Rural	1,185
TOTAL:	11,652
C 0,1,2	
Row Crops	3,950
Sod Crops	197
Idle	1,382
Pasture	790
Forest	790
Other Rural	395
TOTAL:	7,504
C 3,4,5	
Row Crops	987
Sod Crops	395
Pasture	197
Other Rural	395
TOTAL:	1,974
D 0,1,2	
Row Crops	592
Forest	197
Other Rural	197
TOTAL:	986
D 3,4,5	
Row Crops	1,382
Idle	197
Pasture	395
Forest	395
TOTAL:	2,369
F 0,1,2	
Forest	197
F 3,4,5	
Forest	197
GROUP TOTAL:	25,081
3b	
A 0,1,2	
Sod Crops	197
B 0,1,2	
Row Crops	395
Forest	197
TOTAL:	592
GROUP TOTAL:	790
3c	
A 0,1,2	
Row Crops	814
Small Grains	411
Sod Crops	206
Idle	197
Fruit	1,440
GROUP TOTAL:	3,069
3/1c	
A 0,1,2	
Row Crops	2,468
Small Grains	1,645
Sod Crops	617
Pasture	206
Forest	411
TOTAL:	5,347
B 0,1,2	
Idle	395
GROUP TOTAL:	5,742

APPENDIX I (cont'd.)

3/2a

A 0,1,2

Row Crops	206
Small Grains	1,028
Sod Crops	411
Pasture	411
Other Rural	206
TOTAL:	2,262

B 0,1,2

Row Crops	2,808
Small Grains	3,496
Sod Crops	1,234
Idle	592
Pasture	197
Fruit	411
Forest	1,637
Other Rural	403
TOTAL:	10,778

C 0,1,2

Row Crops	790
Small Grains	1,253
Forest	197
Other Rural	206
TOTAL:	2,446

D 0,1,2

Row Crops	403
GROUP TOTAL:	15,892

3/2b

A 0,1,2

Row Crops	1,645
Small Grains	206
Sod Crops	411
Forest	1,234
TOTAL:	3,486

B 0,1,2

Row Crops	592
Sod Crops	225
Forest	197
Other Rural	197
TOTAL:	1,211
GROUP TOTAL:	4,708

3/5a

A 0,1,2

Row Crops	1,015
Sod Crops	225
Pasture	225
TOTAL:	1,465

B 0,1,2

Row Crops	6,212
Small Grains	1,272
Sod Crops	617
Idle	225
Pasture	592
Forest	617
Other Rural	996
TOTAL:	10,531

C 0,1,2

Row Crops	2,765
Idle	790
Pasture	987
TOTAL:	4,542

D 0,1,2

Small Grains	206
Sod Crops	411
Other Rural	206
TOTAL:	823

D 3,4,5

Row Crops	197
Idle	592
Other Rural	197
TOTAL:	986

E 0,1,2

Pasture	987

F 3,4,5

Forest	395
Other Rural	592
TOTAL:	987
GROUP TOTAL:	20,323

3/5b

A 0,1,2

Row Crops	197
Sod Crops	197
Pasture	197
TOTAL:	591

B 0,1,2

Row Crops	395
GROUP TOTAL:	987

3/5c

A 0,1,2

Row Crops	2,506
Small Grains	1,067
Sod Crops	430
Pasture	395
GROUP TOTAL:	4,398

4a

AB 0,1,2

Row Crops	4,485
Sod Crops	1,714
Pasture	197

APPENDIX I (cont'd.)

Fruit	206
Forest	817
Other Rural	206
TOTAL:	7,625
C 0,1,2	
Row Crops	647
Sod Crops	450
Pasture	197
Forest	395
Other Rural	206
TOTAL:	1,895
GROUP TOTAL:	9,520

4b	
AB 0,1,2	
Row Crops	4,154
Small Grains	206
Sod Crops	1,028
Forest	823
Other Rural	411
GROUP TOTAL:	6,622

4c	
AB 0,1,2	
Row Crops	1,573
Small Grains	450
GROUP TOTAL:	2,023

4/1b	
AB 0,1,2	
Row Crops	674

4/2a	
AB 0,1,2	
Row Crops	1,382
Small Grains	450
Idle	225
Pasture	225
Fruit	450
Forest	620
Other Rural	198
TOTAL:	3,550
C 0,1,2	
Row Crops	987
Sod Crops	450
Idle	197
Forest	790
Other Rural	197
TOTAL:	2,621
E 0,1,2	
Forest	225
GROUP TOTAL:	6,395

4/2c	
AB 0,1,2	
Forest	592

5a	
AB 0,1,2	
Row Crops	3,752
Forest	197
TOTAL:	3,949
F 0,1,2	
Forest	197
GROUP TOTAL:	4,147

5b	
AB 0,1,2	
Row Crops	1,798
Small Grains	411
Fruit	206
Forest	422
Other Rural	430
GROUP TOTAL:	3,268

5c	
AB 0,1,2	
Row Crops	225

5/2a	
AB 0,1,2	
Forest	197
C 0,1,2	
Idle	592
GROUP TOTAL:	790

5/2b	
AB 0,1,2	
Row Crops	1,573
Forest	225
GROUP TOTAL:	1,798

5,3a	
AB 0,1,2	
Row Crops	1,851
Small Grains	1,234
Sod Crops	206
Pasture	197
Fruit	1,028
Other Rural	206
TOTAL:	4,722
C 0,1,2	
Row Crops	197
Small Grains	411
Sod Crops	206

APPENDIX I (cont'd.)

Fruit	617
TOTAL:	1,431
C 3,4,5	
Pasture	592
D 3,4,5	
Pasture	197
GROUP TOTAL:	6,943
L-2a	
A 0,1,2	
Row Crops	197
Pasture	395
Forest	2,172
GROUP TOTAL:	2,765
L-2bc	
A 0,1,2	
Row Crops	7,511
Small Grains	2,925
Sod Crops	2,435
Idle	395
Pasture	2,055
Forest	3,910
Other Rural	434
GROUP TOTAL:	19,667
L-Mc	
A 0,1,2	
Row Crops	395
Pasture	395
GROUP TOTAL:	790
Mc	
A 0,1,2	
Row Crops	1,226
Small Grains	411
Sod Crops	1,645
Pasture	1,382
Forest	7,125
Other Rural	592
GROUP TOTAL:	12,382
M/1c	
A 0,1,2	
Small Grains	205
Forest	823
GROUP TOTAL:	1,028
M/3c	
A 0,1,2	
Row Crops	4,189
Sod Crops	617
Idle	1,382
Pasture	790
Forest	1,294
Other Rural	197
GROUP TOTAL:	8,470
M/4c	
A 0,1,2	
Forest	197
M/mc	
A 0,1,2	
Row Crops	1,645
Small Grains	1,234
Sod Crops	2,057
Other Rural	206
GROUP TOTAL:	5,142
LRA TOTAL:	563,049

APPENDIX J

SMG's, Their Included Series, Acreage and Percent of Michigan.

SMG	Included Series	Acreage	Percent
Misc.		89,367	0.29
0a	Ontonagon	150,846	0.49
0b	Roselms		
	Rudyard	165,338	0.53
0c	Bergland		
	Paulding	49,288	0.16
1a	Kent		
	St. Clair		
	Superior	142,609	0.46
1b	Fulton		
	Nappanee		
	Selkirk	281,854	0.91
1c	Hoytville		
	Latty		
	Pickford		
	Toledo	230,770	0.74
1.5a	Barker		
	Morley		
	Nester		
	Nunica		
	Watton	1,156,845	3.73
1.5b	Blount		
	Bowers		
	Delrey		
	Kawkawlin		
	Twining	634,907	2.05
1.5c	Hettinger		
	Hettinger, mesic var.		
	Jeddo		
	Lenawee		
	Pewamo		
	Sims		
	Sims, mesic var.	663,384	2.14
2.5a	Celina		
	Dighton		
	Guelph		
	Isabella		
	Marlette		
	Miami		
	Ockley		
	Onaway	1,639,718	5.29
2.5a-af	Elo		
	Wakefield	42,331	0.14
2.5a-s	Bohemian		
	Sisson		
	Tuscola	117,513	0.38

APPENDIX J (cont'd.)

2.5b	Capac, fri. var.		
	Capac		
	Conover		
	Londo		
	Mackinac	1,199,333	3.87
2.5b-a	Elo, less wet var.	217	tr.
2.5b-s	Brimley		
	Brimley, mod. fine sbt var.		
	Kibbie		
	Kibbie, mod. fine sbt var.	218,004	0.70
2.5b-cs	Sanilac	5,252	0.02
2.5c	Angelica		
	Angelica, mesic var.		
	Brookston		
	Parkhill	871,460	2.81
2.5c-c	Tappan		
	Thomas		
	Thomas, mesic var.		
	Wisner		
	Wisner, fri. var.	80,724	0.26
2.5c-s	Bruce		
	Colwood	129,021	0.42
2.5c-cs	Bach	1,036	tr.
3a	Bronson, sl		
	Dryden		
	Elmdale		
	Emmet		
	Hillsdale		
	Lapeer		
	Omena		
	Oshtemo, sl		
	Trenary	1,374,961	4.43
3a-f	McBride	267,152	0.86
3a-af	Champion		
	Iron River		
	Gogebic		
	Munising	1,303,616	4.20
3a-m	Oshtemo, mollic var.	5,893	0.02
3a-s	Alcona	4,370	0.01
3b	Brady, sl		
	Coral		
	Locke		
	Teasdale		
	Traverse		
	Tula	319,730	1.03
3b-af	Skanee	79,563	0.26
3b-s	Richter	19,577	0.06
3c	Barry		
	Ensley		
	Ensley, mesic var.		
	Gay		
	Gay, mesic var.		

APPENDIX J (cont'd.)

	Lacota		
	Lacota, mesic var.		
	Witbeck	124,376	0.40
3c-s	Tonkey		
	Tonkey, mesic var.	29,602	0.10
3/1a	Dryberg	3,982	0.01
3/1b	Dafter	6,904	0.02
3/1c	Munuscong		
	Wauseon	154,322	0.50
3/2a	Cadmus		
	Kendallville		
	Owosso		
	Ubly		
	Ubly, mesic var.	193,638	0.62
3/2b	Belding		
	Belding, mesic var.		
	Macomb		
	Metamora	206,112	0.66
3/2c	Berville		
	Breckenridge		
	Corunna	72,268	0.23
3/5a	Coventry		
	Dowagiac		
	Dresden		
	Fox		
	Ionia		
	Kalamazoo		
	Newaygo		
	Sunfield	1,329,801	4.29
3/5a-a	Amasa		
	Stambaugh	74,872	0.24
3/5a-m	Volinia		
	Warsaw	52,863	0.17
3/5b	Matherton		
	Palo	114,876	0.37
3/5c	Sebewa	127,704	0.41
3/Ra	Longrie		
	Michigamme-Rockland co.		
	Onota		
	Parma	270,442	0.87
3/Rbc	Parma, wet var.		
	Sundell		
	Nahma	8,634	0.03
4a	Blue Lake		
	Blue Lake, mesic var.		
	Boyer		
	Bronson, ls		
	Casco		
	Gilchrist		
	Karlin		
	Karlin, mesic var.		
	Kiva		

APPENDIX J (cont'd.)

	Leelanau		
	Mancelona		
	Mancelona, mesic var.		
	Montcalm		
	Oshtemo, ls		
	Perrin		
	Rousseau		
	Rousseau, mesic var.		
	Spinks	2,530,552	8.16
4a-a	Keweenaw		
	Pence	272,707	0.88
4b	Brady, ls		
	Fabius		
	Gladwin		
	Otisco		
	Thetford		
	Wainola		
	Wasepi	256,139	0.83
4c	Deford		
	Deford, mesic var.		
	Edmore		
	Edmore, fri. var.		
	Epoufette		
	Epoufette, mesic var.		
	Gilford		
	Saganing		
	Spinks, ls, wet var.	310,355	1.00
4/1a	Manistee		
	Manistee, mesic var.		
	Seward	40,913	0.13
4/1b	Allendale		
	Arkona		
	Rimer	183,132	0.59
4/1c	Pinconning		
	Sicles	29,770	0.10
4/2a	Ocqueoc		
	Mancelona, 1 sbt		
	Mancelona, 1 sbt, mesic var.		
	Menominee		
	Metea	226,193	0.73
4/2b	Gladwin, 1 sbt		
	Iosco		
	Wixom		
	Thetford, 1 sbt	355,852	1.15
4/2bs	Ingalls		
	Rapson	21,993	0.07
4/2c	Brevort		
	Brevort, mesic var.		
	Burleigh		
	Burleigh, mesic var.		
	Metea, wet var.	158,416	0.51
4/2c-c	Essexville	8,265	0.03

APPENDIX J (cont'd.)

4/Ra	Duel	2,187	0.01
5a	Chelsea		
	Coloma		
	Croswell		
	Covert		
	East Lake		
	Graycalm		
	Kalkaska		
	Kalkaska, red sbt		
	Kalkaska, mesic var.	2,792,690	9.00
5a-h	Wallace	133,067	0.43
5a-m	Sparta		
	Sparta, fri. var.	8,809	0.03
5.3a	Deer Park		
	Eastport		
	Eastport, mesic var.		
	Oakville, fs		
	Oakville, mwd		
	Plainfield		
	Plainfield, fri. var.		
	Rubicon		
	Rubicon, mesic var.		
	Shelldrake		
	Vilas	2,447,270	7.89
5.7a	Grayling		
	Grayling, boric var.		
	Omega	690,469	2.23
5b	Au Gres		
	Brems		
	Morocco		
	Morocco, fri. var.		
	Pipestone		
	Tedrow		
	Tedrow, fri. var.	654,518	2.11
5b-h	Channing		
	Channing, mesic var.		
	Finch		
	Ogemaw		
	Ogemaw, mesic var.		
	Saugatuck	170,258	0.55
5c	Granby		
	Kingsville		
	Roscommon		
	Vestaburg	778,474	2.51
5c-c	Tobico	12,129	0.04
5c-a	Kinross		
	Kinross, mesic var.		
	Roscommon, acid var.	198,415	0.64
5/2a	Melita		
	Oakville, 1 sbt		
	Rubicon, 1 sbt, mesic var.		
	Rubicon, 1 sbt var.	169,435	0.55

APPENDIX J (cont'd.)

5/2b	Arenac		
	Au Gres		
	Morocco	164,189	0.53
L-2a	Eel		
	Eel, fri. var.		
	Genesee		
	Genesee, fri. var.		
	Landes		
	Landes, fri. var.	44,911	0.14
L-2c	Ceresco		
	Ceresco, fri. var.		
	Cohoctah		
	Cohoctah, fri. var.		
	Saranac		
	Shoals		
	Shoals, fri. var.		
	Sloan		
	Sloan, fri. var.		
	Wallkill		
	Wallkill, fri. var.		
	Washtenaw		
	Washtenaw, fri. var.	496,935	1.60
L-4a	Abscota		
	Abscota, fri. var.	26,272	0.08
L-4c	Algansee		
	Glendora		
	Glendora, fri. var.		
	Winterfield	87,582	0.28
L-Mc	Kerston		
	Kerston, fri. var.	107,083	0.35
Mc	Carbondale		
	Carlisle		
	Houghton		
	Houghton, fri. var.		
	Lupton		
	Rifle		
	Rifle, mesic var.	2,031,971	6.55
Mc-a	Dawson		
	Dawson, mesic var.		
	Greenwood		
	Greenwood, mesic var.		
	Spalding		
	Spalding, mesic var.		
	Tahquamenon	363,082	1.17
M/1c	Willette		
	Willette, fri. var.	34,964	0.11
M/3c	Cathro		
	Linwood		
	Palms	229,001	0.74
M/4c	Adrian		
	Markey	474,851	1.53
M/mc	Edwards		

APPENDIX J (cont'd.)

	Edwards, fri. var.		
	Warners		
	Warners, fri. var.	55,474	0.18
Ga	Allouez		
	Alpena		
	Johnswood		
	Rodman		
	Waiska	153,294	0.49
Gbc	Detour		
	Diana		
	Hessel		
	Hessel, mesic var.	62,408	0.20
G/Ra	Allouez, bedrock sbt	35,165	0.11
Ra	St. Ignace		
	Summerville		
	Michigamme-Rockland Co.	188,668	0.61
Rbc	Burt		
	Ruse	66,481	0.21
TOTAL:		31,013,053	100.23

tr. = trace - less than 0.01