

VERNE STEWARD



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MARKETING MINNESOTA'S CERTIFIED SEED POTATOES

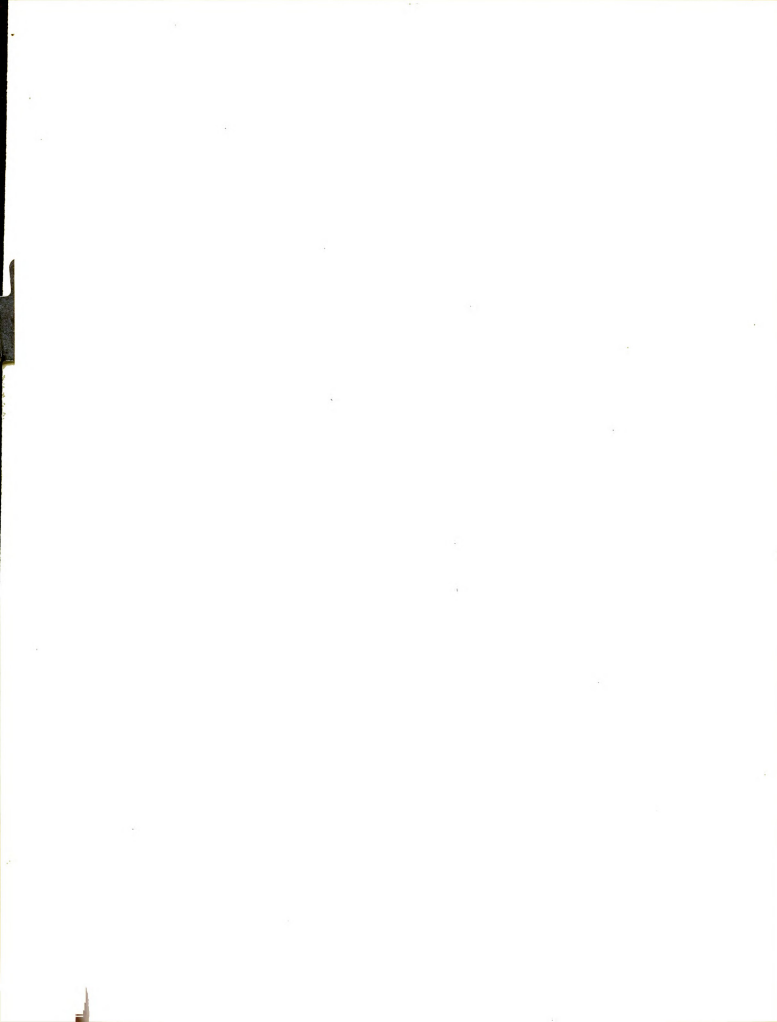
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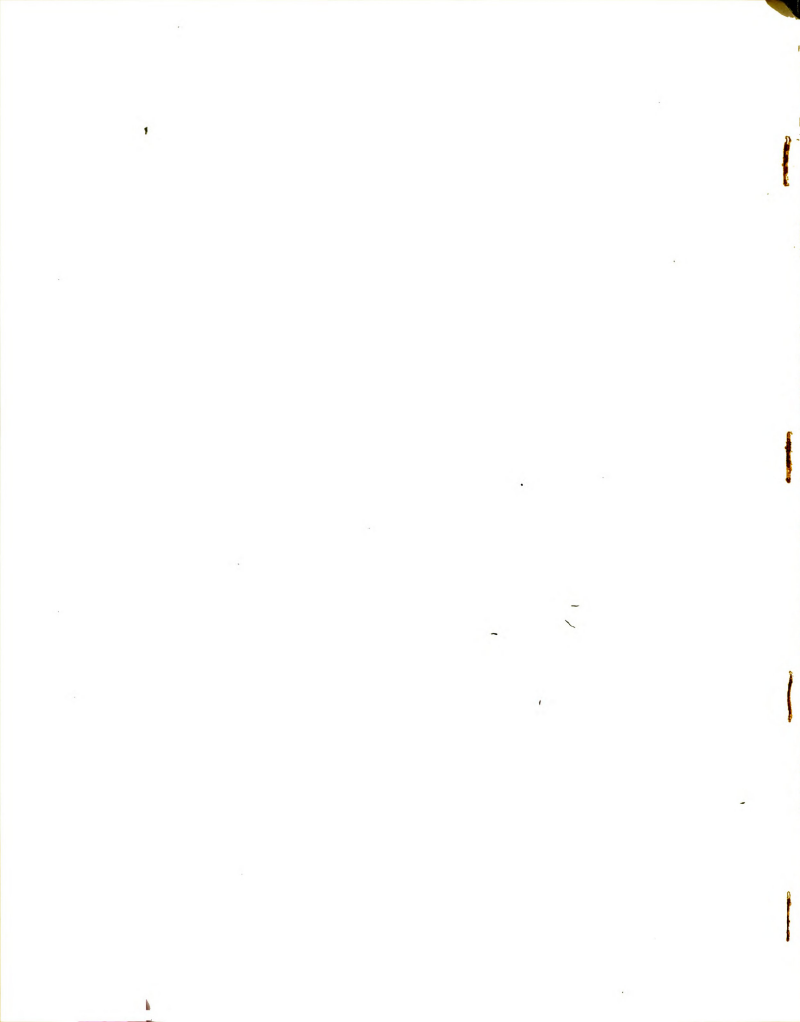
VERNE STEWARD

1926

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THESIS

MARKETING MINNESOTA'S CERTIFIED SEED POTATOES

Submitted by

Verne Steward

To The Department of Field Crops

Michigan State College

June 1926

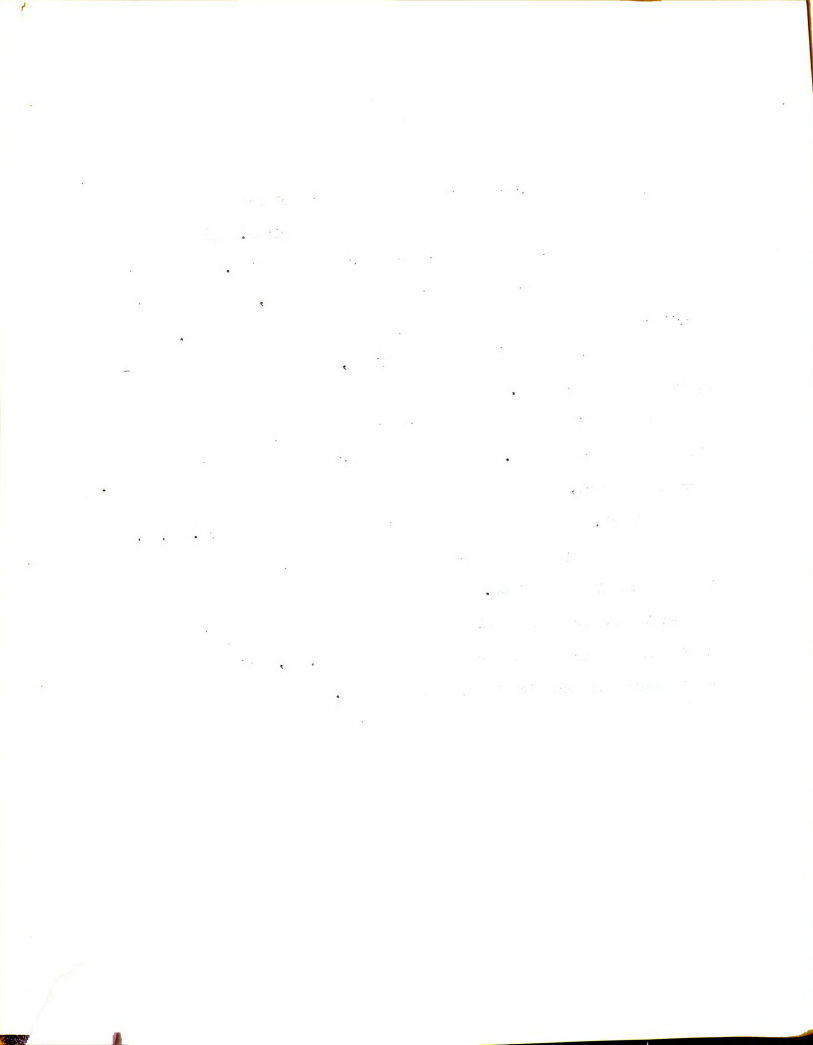
THESIS

FOREWORD

The material comprising this thesis is derived almost entirely from the personal experiences and investigations of the writer. The experiences include both production and marketing in various capacities. The writer has sold seed potatoes in car lots in twenty two states, extending over a territory from Long Island to New Mexico and From Florida to Utah. He has traveled in nearly all the territory outlined, studying cultural requirements and sales problems.

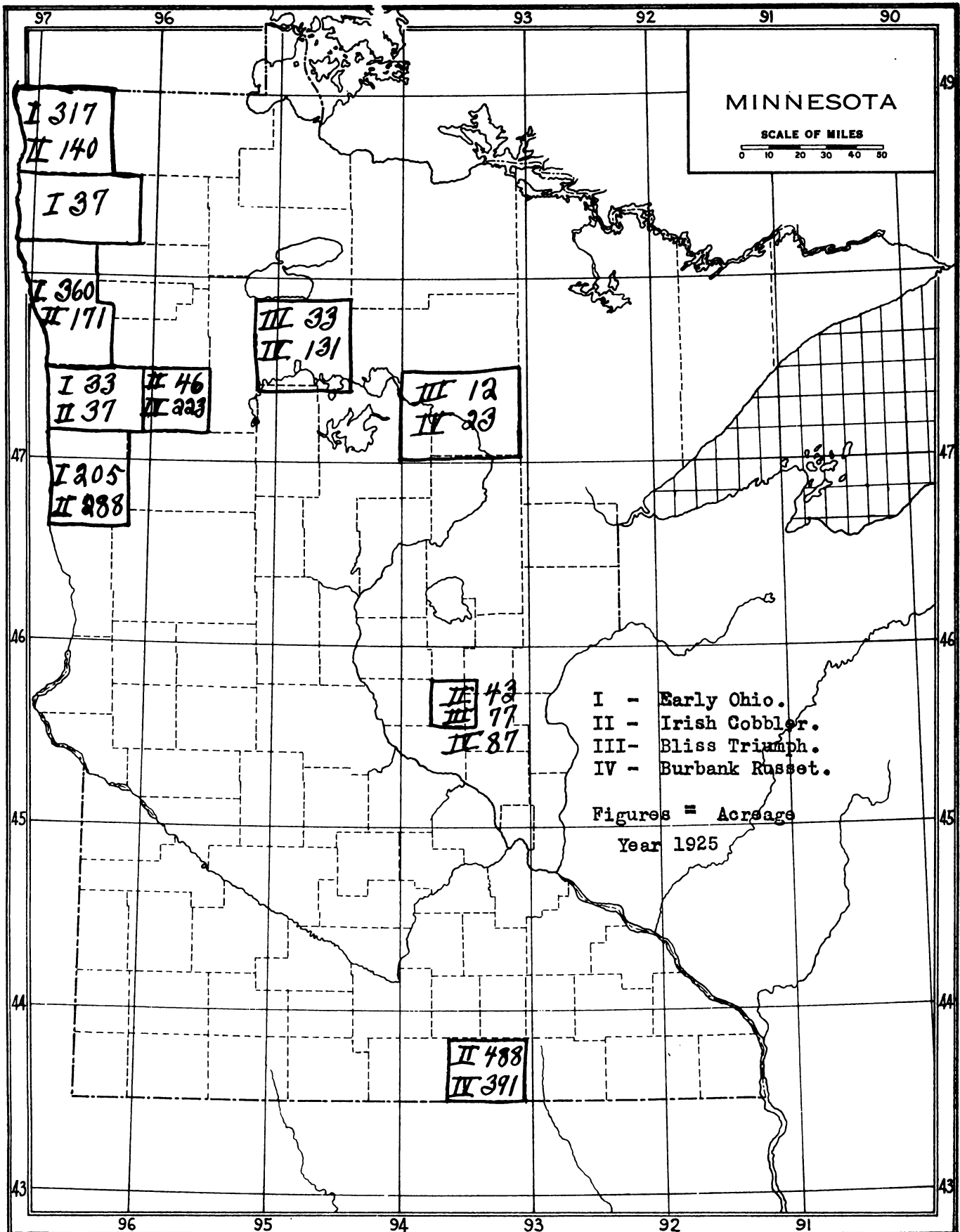
The certifying of seed potatoes in Minnesota was provided for by the State Legislature of 1919. The College of Agriculture was first named to carry on the work, but this was later transferred to the State Department of Agriculture. Certification has been in operation seven years. A. G. Tolaas was placed in active charge when the work was initiated and has been in charge continuously since.

In the latter part of this thesis will be found extracts from State of Minnesota Department of Agriculture Bulletin No. 47, giving methods and requirements for certification and general data.



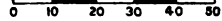
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MINNESOTA

SCALE OF MILES



- I - Early Ohio.
- II - Irish Cobbler.
- III - Bliss Triumph.
- IV - Burbank Russet.

Figures = Acreage

Year 1925

I 317
II 140

I 37

I 360
II 171

I 33 II 46
II 37 II 223

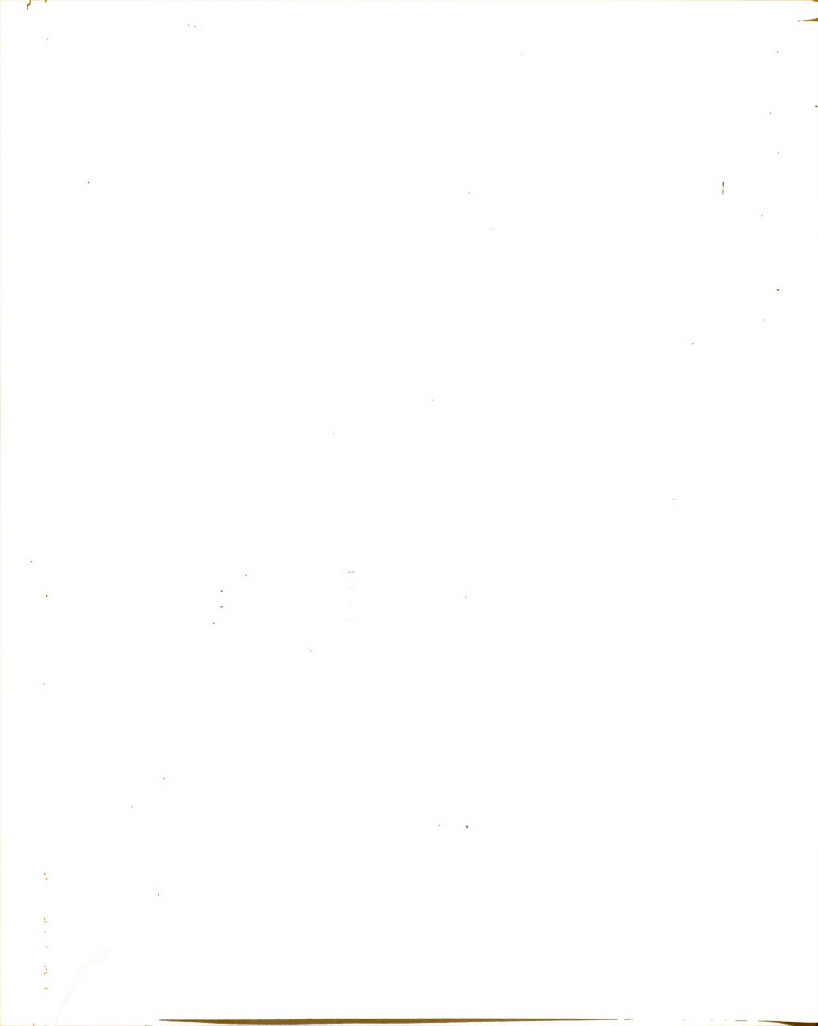
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HISTORY OF SEED POTATO INDUSTRY PREVIOUS TO CERTIFICATION

The work of certification in Minnesota began in 1919. Previous to this time the question of field disease did not enter into the marketing of seed potatoes. Scab or rots caused by disease were removed in grading more on the grounds of appearance than for any other reason. Practically all the potatoes were sold to local dealers or representatives of large operators and were resold in car lots. Practically the same standards of grading prevailed as in the case of table stock. There was no such thing as Federal or State inspection.

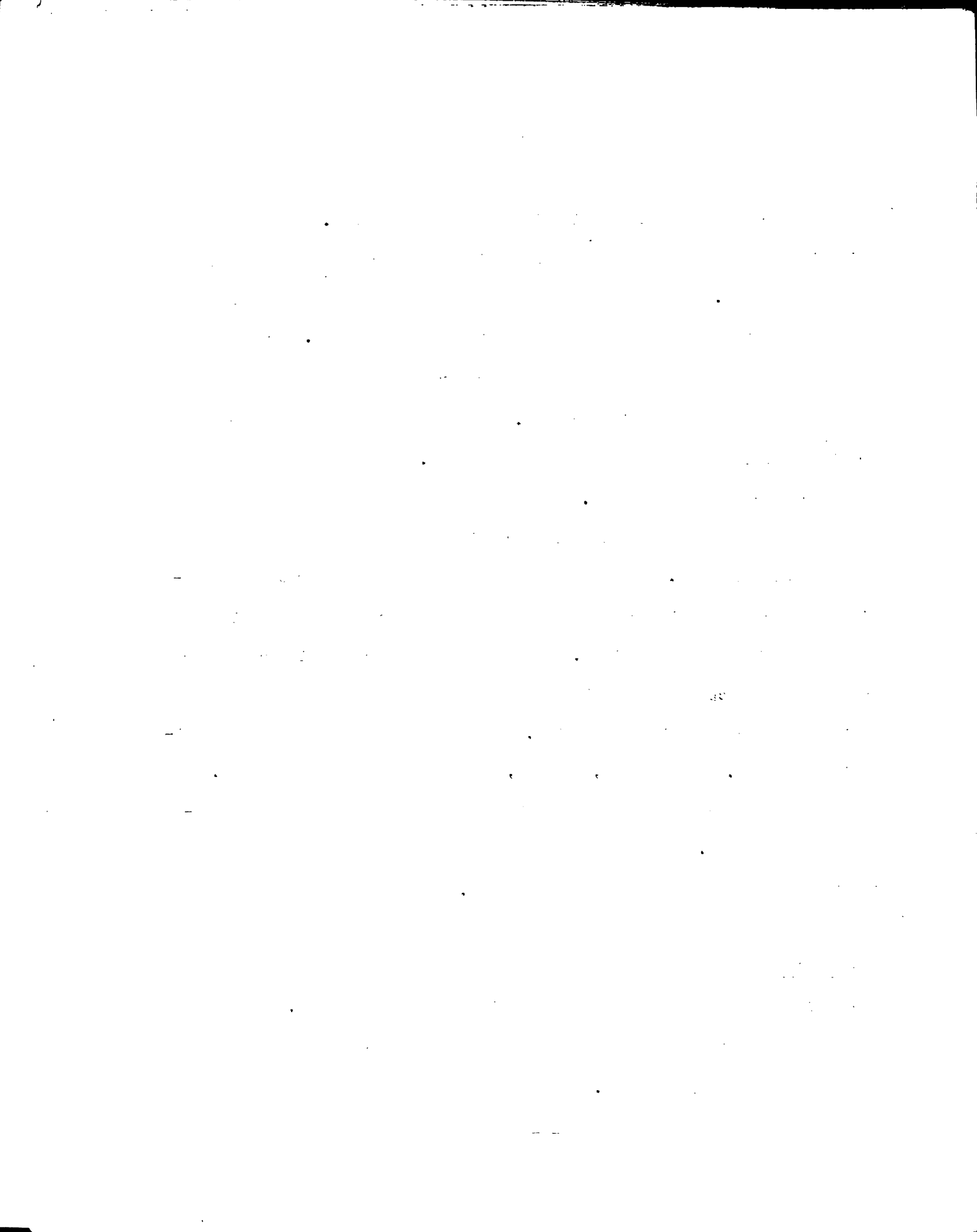
The work of standardization of varieties was gradually developed between 1910 and 1919. During this period the College of Agriculture published several bulletins recognizing eight standard varieties as being adapted to Minnesota conditions. The State Fair in prescribing rules for potato exhibits came to recognize eight standard varieties and refused to admit other varieties in competition. There have been many cases of duplication of names. All of this, however, has been gradually eliminated.

Potato dealers and seedsmen in Minnesota gradually followed the tendency of the times. By 1919 there was practically no reference to potatoes in Minnesota except by their standard names.

The standard varieties are as follows:

Early Ohios:

Early Six Weeks and Early Market are similar if not identical. Grown as an early potato in Central Minnesota and as a crop for both seed and table stock in the Red River Valley.



Triumph:

Quick Lunch, Red Bliss and Bliss Triumph are similar if not identical.

Grown in the sand land and cut-over district lying between the Twin Cities and the Canadian line. This variety is grown only for seed stock.

Irish Cobbler:

Early Eureka is similar if not identical. Grown partly as an early white table stock variety and partly for shipment as seed stock. This variety is rapidly increasing in popularity in Minnesota.

Rural New Yorker:

Sir Walter Raleigh and Carman No. 3 are similar if not identical. Grown as a white table variety in Central and Southern Minnesota. This variety is too late in maturity for some of the northern sections.

Green Mountain:

Carman No. 1, Empire State, Gold Coin and Uncle Sam are similar if not identical. This is our most popular late white table variety.

Burbank:

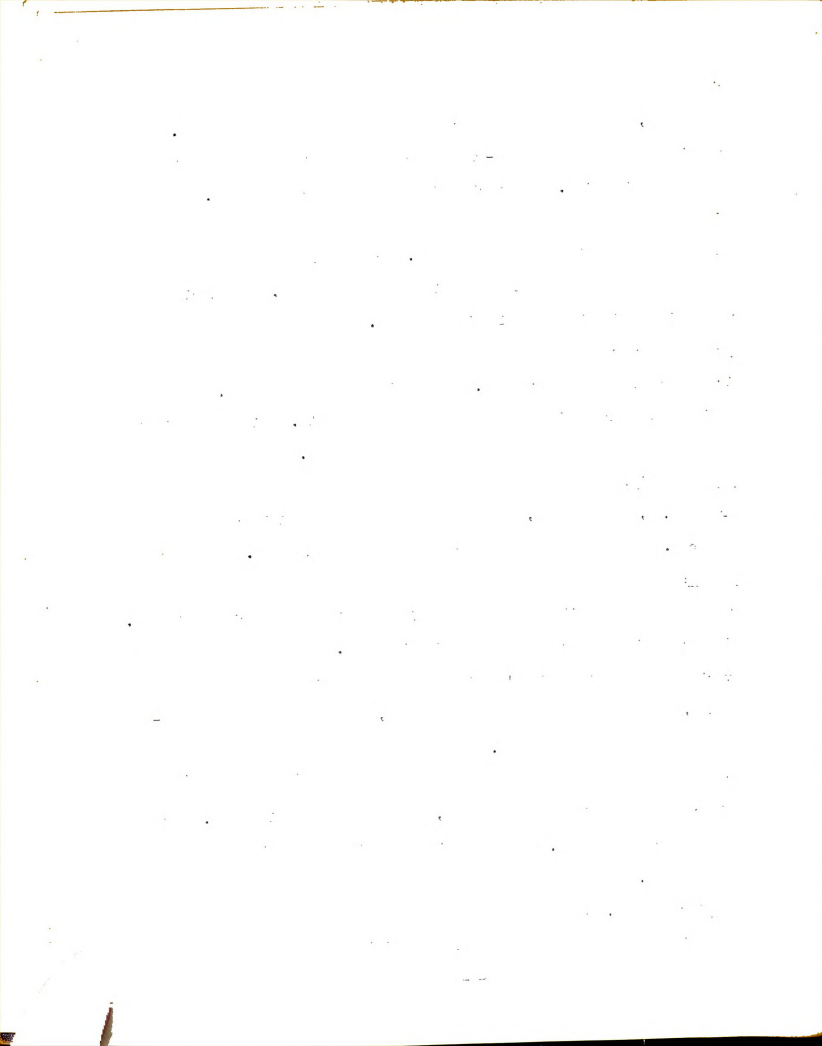
Frequently confused with White Star and Pingree which are inferior varieties. This variety is now very little grown in Minnesota. There is some demand for a variety which in the writer's opinion is not quite identical with the true Burbank, commonly called "California Burbank", for seed purposes for shipment to the State of California.

Burbank Russet:

Similar if not identical to Netted Gem, grown in Northern Minnesota. Very valuable for table stock. Also for shipment west to the irrigated districts as seed stock.

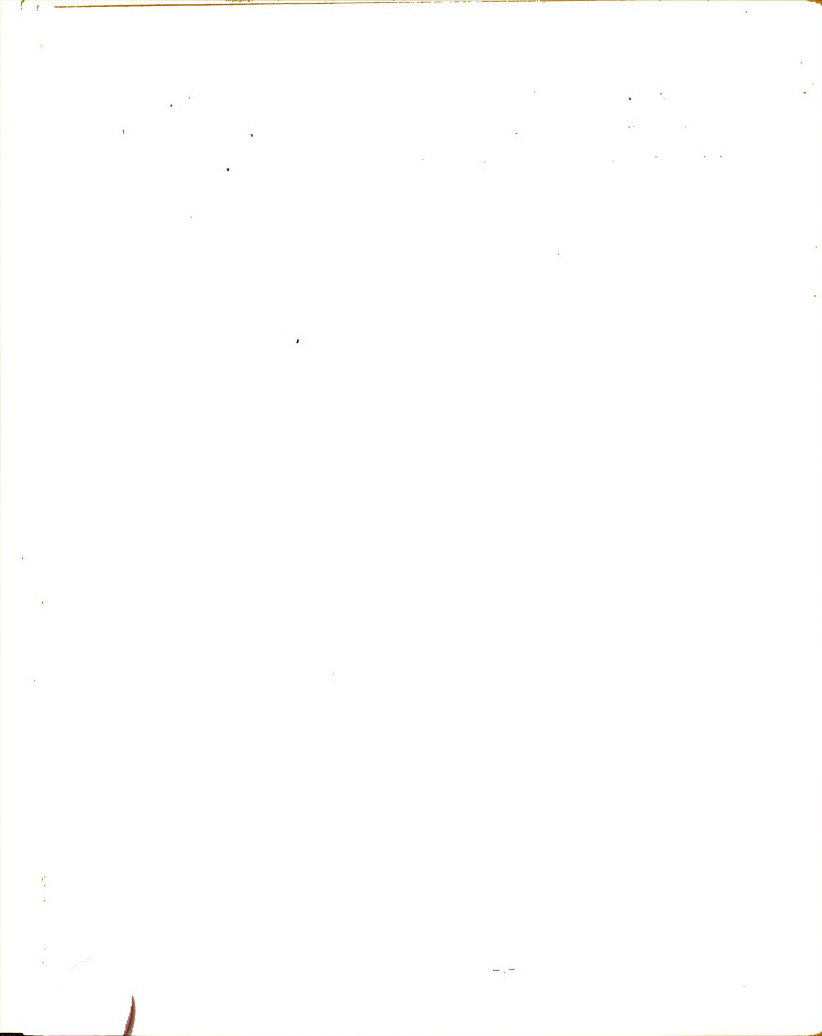
Spaulding Rose No. 4:

This variety is identical with the King and similar if not identical to



Maggie Murphy. Valuable in the light sandy districts as a late potato.

Not particularly successful in late years for the seed trade. In the writer's opinion this variety could be dropped without loss to the State.



PROBLEMS AT POINT OF ORIGIN

In the early days of Certification there were three principal producing districts in Minnesota. The Red River Valley came first, producing Early Ohios and Cobblers. In the Northern Minnesota Cut-Over country we have a fairly large number of small growers of Triumphs, Cobblers and Burbank Russets. In Central Minnesota, in the vicinity of Princeton, the writer with cooperators produced Cobblers, Triumphs, Early Ohios and Spaulding Rose No. 4.

During the past five years conditions have changed. The Red River Valley has continued a leader in production. The Cut-Over country has continued on much the same basis as in the past. In Central Minnesota in seed potato production the drift has been from upland to peat. Nearly all of the acreage shown on the map for Central Minnesota was on peat. During the past five years in Southern Minnesota on a large peat land development project we have had a remarkable increase in acreage. In 1925 there were nearly 900 acres of certified potatoes. The acreage is entirely on the peat lands mentioned.

Certified seed potato production seems to be a game for specialists. It has succeeded in the Red River Valley, first, because the soil was adapted to certain varieties; and second, because of the leadership of two or three men who have assisted in field roguing, who have supervised inspection, harvesting and warehousing, and who have handled the sales. In Kittson County, the farthest north of the Red River Counties, the county agent was a considerable factor in the extension of the acreage. In Mahnomon County, the farthest east of the Red River Counties, a big part of the acreage belongs to a Minneapolis business man, operating a large farm project in



that County.

In the Cut-Over country, shown in two squares on the map, the work has been largely that of two active county agricultural agents.

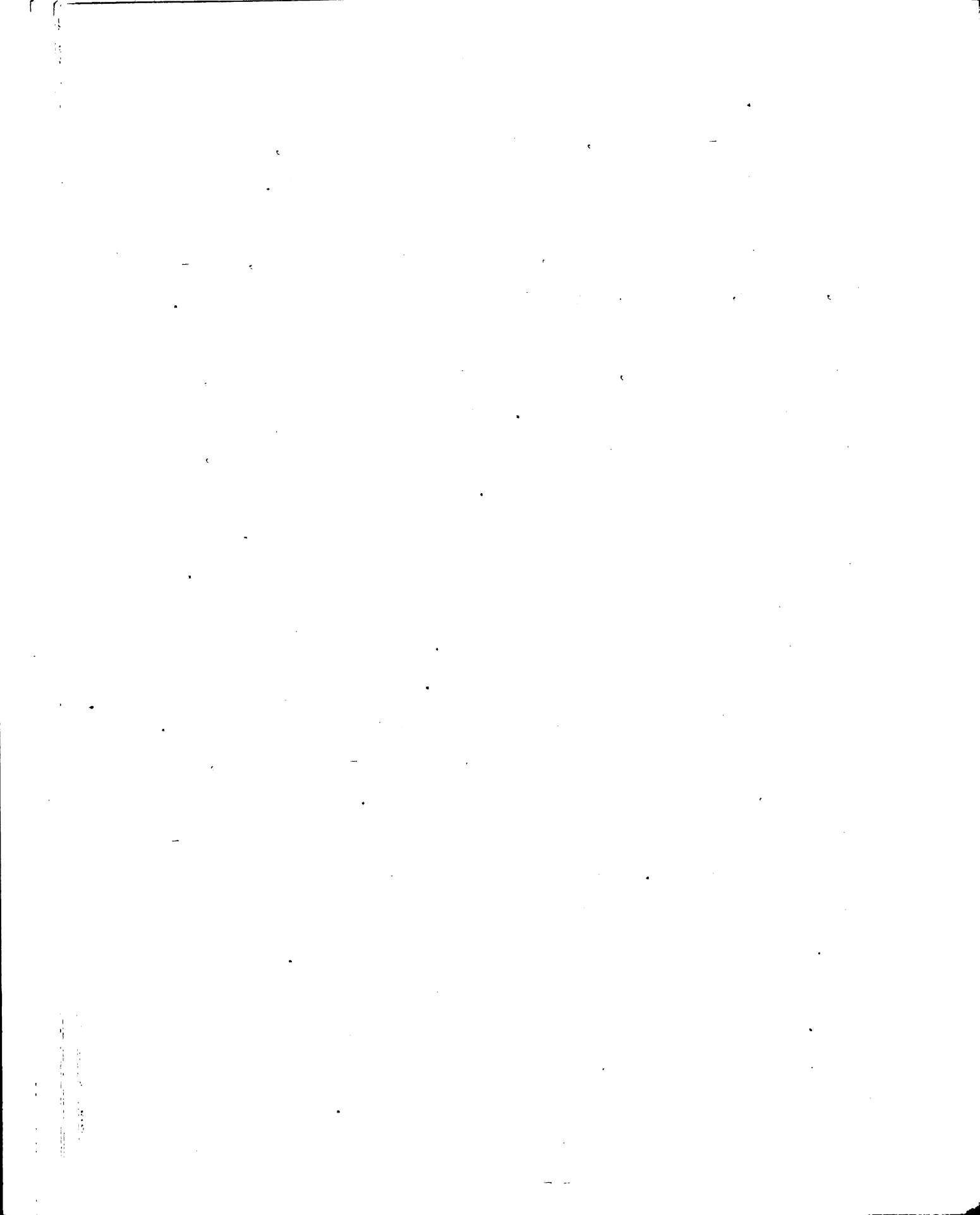
In Central Minnesota the entire development seems to be the outcome of the earlier work of the writer, who assisted in treating seed, spraying, roguing, harvesting, warehousing and marketing in earlier projects.

In Southern Minnesota the work is entirely the development of a Farms Development Company, who after draining and developing the land, are offering it for sale to settlers. This company maintains a potato growing and marketing expert as a part of its service to the settlers, and the project has been very successful.

Small growers cannot grow more than one variety to advantage. Large growers should limit themselves to not more than two or three varieties.

It is extremely important that each community pick the right variety for the soil conditions and for market outlet. The Red River Valley is famous as a producing district for Early Ohios. It would be a mistake for any other district in the state to grow this variety for seed purposes. Cobblers may be grown in either the Valley, in the Cut-Over districts, or on the peat, whether in Central or Southern Minnesota. Both the northern part of the state and the peat lands in the central part of the state produce excellent Triumphs. Burbank Russets may be grown in either the northern parts or on peat in either the central or southern parts of the state.

Certified Green Mountain seed potatoes have not found a ready market outlet. We have not been able to compete with the upper New England States, upper New York State, and the Province of Nova Scotia in Canada in the production of seed for Long Island and New Jersey. The Green Mountain variety has not been particularly successful in the states south

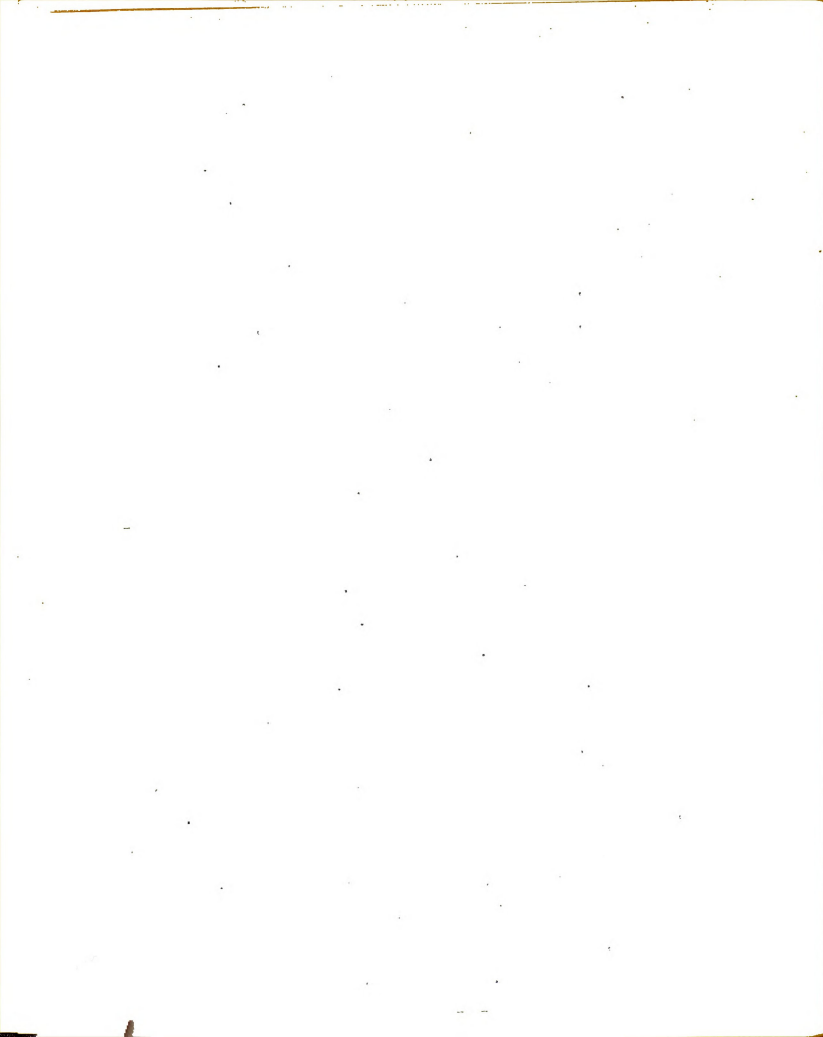


of Minnesota. We will continue it for table stock purposes. We do not grow many Rurals for seed stock. Wherever this has been tried we have been at a disadvantage with the States of Wisconsin and Michigan. We are unable to compete with Maine in the sale of Spaulding Rose No. 4 to the Florida trade.

The writer has sold practically all the varieties, and over a wide range of territory, but has come to the conclusion that we should limit ourselves to Ohios, Cobblers, Triumphs and Russet Burbanks, and establish ourselves better in the territory in which we have an advantage. Repeating business at fair prices with customers who would naturally look to us for their needs is far better than to attempt to compete with other producing districts having an advantage over us. Michigan has a special advantage for either the plain Rural or the Russet Rural. It would seem at this distance that Michigan has been working against sales resistance in attempting to put across the Russet Rural. It would seem that a more ready market could be found for the old-fashioned white Rural.

Variety governs time of sale and shipment. Triumphs and Cobblers are shipped in January and February. Cobblers and Early Ohios are shipped in February and March. Russets are shipped in March. Except where it appears that the winter market will be higher than the fall market, little buying is done in the fall. Growers of certified seed potatoes must store their product and wait until thirty to sixty days previous to time of shipment, usually, before offering their stocks for sale to the best advantage.

This brings out the question of where the crop is to be stored: whether at home in the farmers' cellars, or in common warehouse on track. If stocks on hand are to be shown to visiting buyers, if stocks to be sold are to be graded uniformly, then smaller growers must unite and store their product in a common warehouse on track. Large growers, producing ten to twenty or

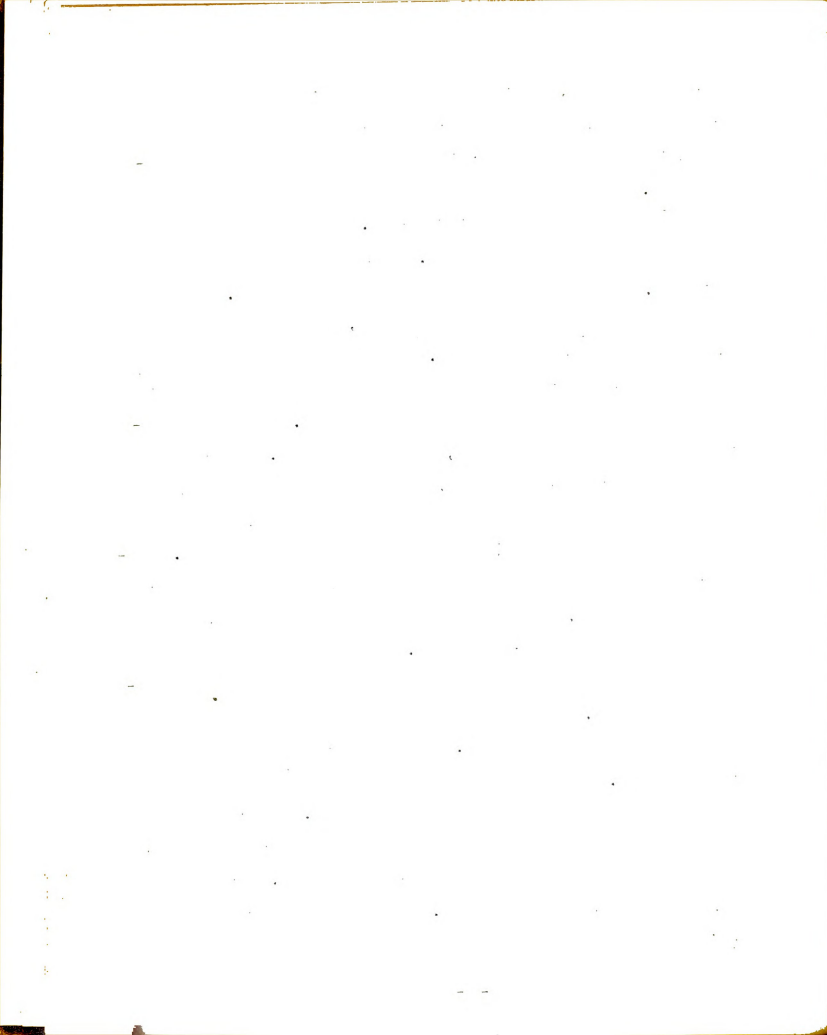


thirty carloads each, find it easy to maintain a uniform standard of grading and have volume enough in private storage so that visiting buyers may examine the stocks and ascertain for themselves what they need in buying wisely.

The question of warehousing is important. The crop grown must be stored until the natural shipping date. It is a mistake to attempt to avoid this. We have better natural storage conditions at home. We can sort and grade the product just before shipping, so that the stocks may arrive in a most attractive condition.

Any temperature will do where the potatoes are cooled soon after being placed in storage and kept below sprouting temperature. The ideal temperatures are those near freezing point, say about 36 degrees. The grower likes to get his seed in a crisp condition. The main requirement is to reduce the temperature soon after putting the stock in the bin to avoid bin heating and possible loss of vitality, and perhaps also a source of shrinkage. Ventilation is more important for seed potatoes than for table stock in order to retain full vigor. Bruises are dangerous because decay may develop in injured places after the seed is planted. The usual mechanical grading and bin filling equipment in warehouses is not adapted to the handling of certified seed potatoes. All seed stock must be held in storage by someone until planting date the following season. Handling injury causes great losses in such storage.

The question of humidity in storage is important. The writer has stored certified seed potatoes from fall till March with from three to five per cent shrinkage and considers this fairly satisfactory. Part of this shrinkage is natural loss of moisture. Potatoes carefully graded into bins in the fall should not lose in storage but very little except the natural



loss of moisture. If the humidity is fairly high this loss of moisture will be least but the humidity can not be too high or there will be too much development of mould and rots. However, uninjured potatoes are not much affected by high humidity conditions. It may be that under most perfect conditions shrinkage can be held from October to March down to less than three or four per cent. In many warehouses where a great deal of mechanical equipment has been used, such as dumps, graders and conveying systems, then we have shrinkage under long storage conditions running as high as 10, 15 and 20%. This is a tremendous waste.

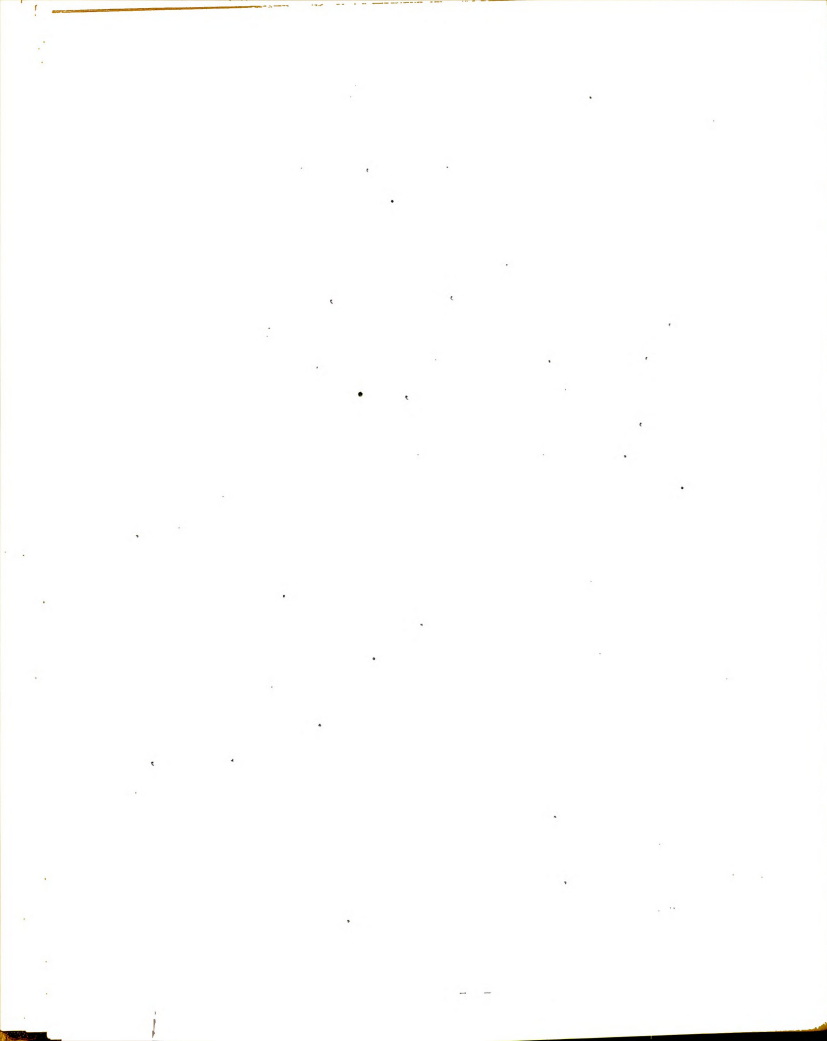
When potatoes are hauled from farms, whether from the fields or the home cellar, care must be taken that frozen stock may not be delivered at the warehouse. A few frozen potatoes mixed in the bin may cause great damage. The writer has seen five or six hundred bushels loss from the dumping through a bin of one small load of potatoes that have been chilled.

In addition to the storage conditions necessary that the seed stocks be maintained up till time of shipment in best condition, we have other advantages in a good warehouse on track. Different varieties and different lots of the same variety can be kept separate. Official inspection of the graded and sacked product can be made in order that certified seed standards in grading as well as in the field can be maintained.

Light does not injure seed potatoes as it does table stock. However, green seed stock is a little less attractive to the buyer and the unnecessary light should be avoided.

The grading of certified seed potatoes is little different than careful grading of table stock. The grading standards will be found later under "Potato Inspection and Certification in Minnesota".

All large growers should use a brand or at least should have their



names on the sacks. It creates confidence in the buyer if the grower will indicate in every way possible who he is and where he lives.

In Minnesota we have two forms of inspection. Our certified seed must be inspected by the State Department of Agriculture before shipment. In addition we may use the Federal Inspection Service. This, however, seems an unnecessary duplication. When certification was first established, the grower was put on his honor to grade according to the prescribed standards. This was a complete failure. It matters not how free from field disease potatoes may be if bruised, heated in storage, or chilled, or if under and over-sized potatoes are shipped as certified seed. Certified seed must maintain a high reputation for quality. Certification must mean something. The certifying authority must follow the product through to the user, must in all cases be sure that prescribed standards of grading have been followed and the stocks properly prepared for shipment.



THE MARKET

Where do Minnesota seed potatoes go? This depends on the variety. Early Ohios go to the group of states from Ohio to Kansas, Southern Minnesota to Missouri. Cobblers go to this same district and in addition go to Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Colorado and Utah. Triumphs go to the far South only. Russet Burbanks go almost entirely to the West. Many of these go to the Yakima Valley. As stated previously, we have not been particularly successful in growing and marketing the other varieties.

In the case of the Early Ohio we have practically no competition from other producing districts, and what we do have comes from North Dakota. Our principal competition in the Cobbler variety comes from Wisconsin. In the case of Triumphs, Western Nebraska and Wisconsin both seem to have a little advantage in the market. In the case of Russet Burbanks, as far as I know, we have no important competition in this general section of the country, the only competition being that of production from high altitudes, as on mountain slopes in certain Western states. It has been interesting to watch the development of certification in Idaho and other Western States.

Conditions may change. Territory in the South now growing Triumphs may find Cobblers more profitable. As stated previously, in the long run Minnesota seed producers will do well to grow varieties naturally adapted to the conditions and to sell to the seed-using districts naturally looking to us for their supplies.

SALES PROBLEMS

How much are seed potatoes worth? This question is asked over and over again. Up to date it has not been a question of how much they are worth. The price has varies with that of table stock. The writer has usually obtained approximately the same price per bushel for certified seed potatoes as the market per cwt. for standard table stock. The margin has varied all the way from 25 cts. to \$1.00 per cwt. premium.

It would be ideal to sell f.o.b. point of origin and not on a delivered basis. It is seldom, however, that this can be done. The buyer wants the shipper to take the transportation risks. Oftentimes he does not know freight rates and is unable to compare point of origin prices. The writer believes in quoting and selling f.o.b. point of origin and then naming the freight rate to point of delivery. In this case the inspection at loading point governs and such inspection is more apt to be favorable than inspection at point of delivery and all transportation risks and losses must be born by the buyer. The principal reason, however, for point of origin sales, is self-protection. In this case any arguments must be settled on home ground.

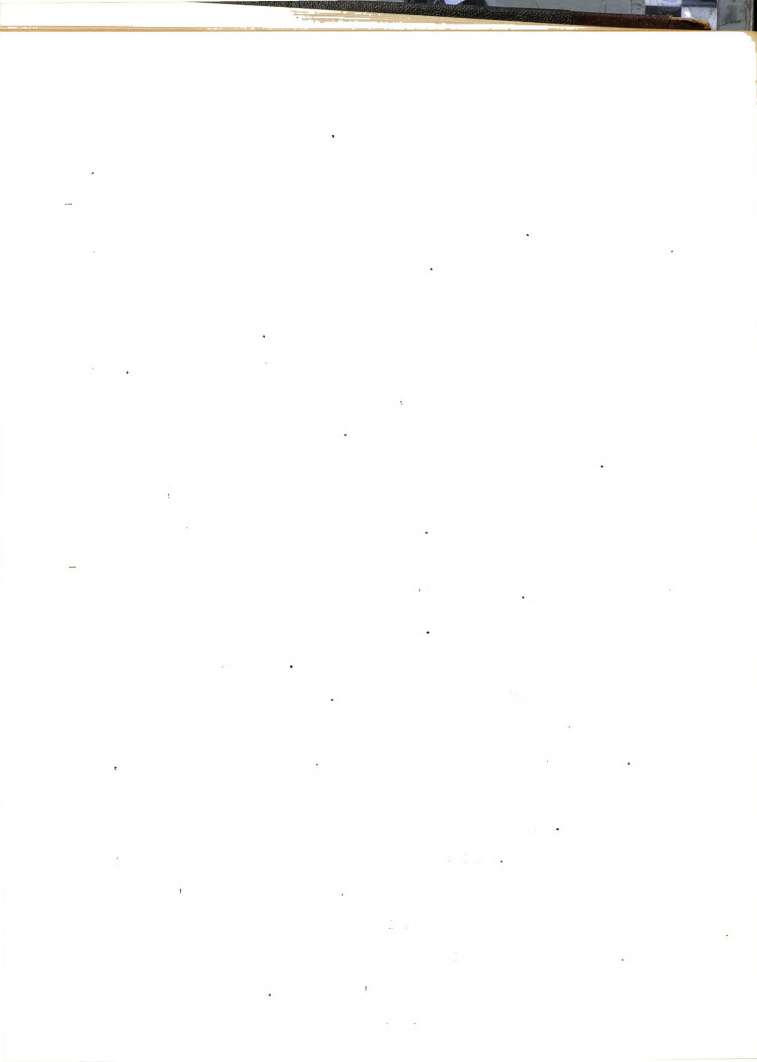
Whether for immediate or future shipment payments down or advance payments are nearly always required. Such payments are necessary in ship-pint West or where resale would be difficult. The writer's usual requirements are two or three hundred dollars per car payment for the central states up to \$500 or payment in full for shipment to western states.

Quality guarantees are dangerous. It is best to sell only according to the standard grading. Many buyers are looking for loop-holes for rejection or for securing reduction or allowances in price.

The rating agencies are not reliable. They deal particularly with the commercial dealers and frequently fail to discredit sharp practices. Sharp practice may be nearly as dangerous as dishonest practice to an inexperienced shipper. Farmer buyers and cooperative organizations buying seed stocks are not usually listed. Certified seed producers attempting to reach the users of seed potatoes instead of the commercial dealer in seed potatoes will have very little for rating agencies.

Minnesota producers have had much experience in sales agencies. Large growers have sold through brokers, large organizations of shippers have sold through distribution sales agencies. All such sales methods have been failures.

It must be recognized that the broker is the other fellow's buying agent and not your sales agent. He is more interested in maintaining his little clientele and of securing advantages for them than he is in protecting your interests. The writer's warning to all shippers is to watch the broker as the cat does a mouse. The writer has investigated these sales problems in practically all states of the south. In no case has he ever seen a broker who acted as his sales agent. In every case he has played shippers from the same section or from different sections against each other. In self-protection and for a hearing, to reach certain buyers, the writer has been forced to go direct to the big user much to the discomfiture of the broker. This personal contact with the user is most valuable to the northern producer. Sales agencies who have had the business of Minnesota cooperative potato marketing associations, have in the writer's experience been a failure and particularly so in connection with the marketing of seed stocks. We will discuss this matter further in discussing the cause for failure of the Minnesota Potato Grower's Exchanges.



Shipments may be billed "open". The title to the goods passing to the consignee as soon as turned over to the railroad. The shipper thus exhibits full confidence in the fairness of the purchaser and yields a considerable means of self-defense in case of differences of opinion. The writer has made a practice of shipping "Shipper's Order Bill of Lading." In this case the shipper retains full control until the goods are paid for. It is of interest in this case that the writer has never had trouble in making collection on delivery where goods were up to standard on shipment, whereas it is a matter of common knowledge that as many as 75% of the shipments in a season's business of the large table stock operators have been in trouble on delivery. This is true particularly in years of declining prices. In periods of advancing markets no one has troubles.

The writer has sold by personal solicitation, personally interesting his offerings to large users. In this case one can not canvass the user of less than car lots. He must restrict his canvassing to the large user or to the organization buying for a number of small users. The value of personal solicitation is largely in making first sale, in building up acquaintance. The user is more apt to buy from a grower he knows than from one he does not know. After acquaintance has been established selling by wire or letter is easier.

Selling by wire has many handicaps, the chief among these being the impossibility of giving a full description of the goods to be sold. Table stock buyers buy for immediate consumption and follow the market closely day after day. Large seed stock dealers also do this. Large users and user organizations usually have plenty of time to use the mail and buy following rather lengthy correspondence. When dealing with farmer users, one must not be too brief, whereas briefness is a virtue in selling to dealers.

It is almost impossible to reach the user of seed potatoes by advertising. Large producer organizations could do this but at a great expense. The trade papers taken by dealers do not reach a large percentage of the user growers. It would be impossible to try to reach them through city newspapers or local papers. Only organizations of large volume could use the widely circulated farm papers. In the writer's opinion to spend money in personal canvass is of more advantage than to spend money in advertising.

Participation in seed tests by experiment stations and in shows and exhibits in the seed using territories are very valuable in the gaining of a reputation as a producer. The circulation of such material carrying often the names of the producers is the finest advertising known. Progressive users of seed, frequently write to state colleges of agriculture for advice and receive direct authentic information. Potato tours both in the seed producing and in the seed using districts are very valuable. Such contacts of producers and users will be of benefit both in the way of learning the users' requirements and of establishing personal acquaintance.

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TRANSPORTATION PROBLEMS

There has been a great change in the kind of cars used in the transportation of potatoes and other perishables. In years gone by it was very common to use box cars in winter by fixing them up with special lining material. The risk was great. Refrigerator cars have come into more and more extended use.

This brings up the question of who is to care for the potatoes in transit. Large shippers in the past have taken the bare refrigerator car and prepared the cars for shipment. In winter it is necessary to heat the cars. Someone had to accompany the cars in shipping. This was called "Shippers Protective Service". The shipper furnished floor racks in order that there might be air circulation between the potatoes and the floor. A false door was put in one side of the car so that a stove could be installed and a pipe carried out. Both wood and coal was used for fuel. All risks of freezing or of overheating were born by the shipper. The railroads returned the floor racks and the stoves on a low freight rate. The person in charge was given free transportation to point of origin. Great changes are taking place with "Carrier's Protective Service". The railroads for a small additional charge running from 4 cts. per cwt. for interstate shipments to 6 cts. from shipments to all states to the south, and up to 7 or 8 cts. for shipments to the west, concede full responsibility for delivery of the potatoes to the purchaser in good condition. Now this small charge is considered by the shippers as insurance as well as payment for service and care of the product in transportation. In the writer's opinion it is foolhardy to ship in late fall or in winter except by "Carrier's

Protective Service." In the case of single cars when the cost of materials and labor of preparing shipments under Shipper's Protective Service is considered, there can be no saving. It is only when a large number of cars go from a common origin to a common destination that Shipper's Protective Service can possibly pay. There are enough risks in agriculture without inviting transportation risks.

Note--With the development of Carrier's Protective Service the railroads have developed and are using special charcoal and oil heaters.

Note--Under Carrier's Protective Service the railroads are responsible for ventilation of cars after they have reached a warm climate as well as for heating of cars in the north.

Railroad claims are usually the result of carelessness or ignorance. The writer has had very few railroad claims. Many large potato farms are expert in pressing claims on railroads. Claim agents have frequently told the writer that in the hard years of 1920-21-22-23 and 24, their firms would have lost money except for the recoveries in railroad claims, and that such recoveries constituted good profit for the year. They have played railroads against each other, so that anxiety of railroads for the large shipper's business has caused them to yield on claims not too well supported.

The principal basis of claims are as follows: Freezing in transit, overheating in transit, delay in transit (particularly in a declining market), improper ventilation, leaky roof, damage from wreck.

In Minnesota under present regulations cars must always be inspected before loading. This is good evidence for the producer as to the condition of the potatoes at that time. The railroads engage the Morehead Inspection Bureau as agents to inspect cars in loading and file these private inspec-



tions. In case of claims the railroads then have the protection of this private service.

It is essential that any damaged condition recognized at point of destination be notated on the freight bill by the railroad agent in charge. The consignee to protect the interests of himself or the shipper must insist upon such notation by the agent, or in case the latter refuses to commit himself obtain a witness to the condition of stock on delivery. In other words, claims for damage must be supported by recognizable evidence.

Many shippers maintain their own traffic departments which handle any railroad claims they may have. Many shippers use the services of special claim bureaus. In Minnesota a bureau supported by the shippers and serving them officially in hearings before the Interstate Commerce Commission and elsewhere maintains a very good claim service. It is the writer's belief that inexperienced shippers should use such service. They must avoid claim sharks. The fees of a competent bureau are reasonable and such a bureau has a recognized standing with the railroads and never fails to get a fair hearing.

The writer has made some mistakes in the matter of railroad claims and nearly always through ignorance. The great majority of smaller shippers do not recognize their full rights in regard to compensation and are hesitant to take action against the railroad. In order to make your part of the seed potato business a success all shippers should have a lengthy consultation with a good claim agent in order to obtain knowledge of the pitfalls to avoid and the service he is entitled to in transportation, especially when using Carrier's Protective Service. As previously stated, in this respect the small shipper may be operating at a very great disadvantage in comparison with the large and experienced shipper.

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MINNESOTA EXPERIENCES IN COOPERATIVE MARKETING

Note: A complete study of the periods of operation and the causes for failure of both the Minnesota Potato Exchange and the Minnesota Potato Growers Exchange would be subject matter for a separate thesis. No doubt there are many contributing factors for failure in each case. The writer will give a brief history of both organizations and will attempt to outline in detail what seem to him to be the most important factor or factors in each case, perhaps to the neglect of other contributing factors. In the various articles published in Minnesota the writer has not seen these particular factors emphasized.

Minnesota Potato Exchange

The Minnesota Potato Exchange began functioning the summer of 1920. It was organized as a sales agency for local shipping associations. During the first year of its operation it used the sales service of the North American Fruit Exchange. For the second year a change was made, and contract was entered into with the American Fruit Growers, Inc.

The Exchange agreed to use exclusively the sales facilities of the Fruit Growers, with the exception of such seed stock as it might care to sell independently. The Fruit Growers maintained a sales manager at the Exchange office in Minneapolis, and agreed to cooperate with its district offices and salaried and brokerage sales agencies to give full and efficient marketing. The Exchange agreed to draw direct on the purchaser for all potatoes sold from the Exchange office.

There were to be recognized four general classes of sales:

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1. Brokerage sales, which included all transactions in which the Fruit Growers in the regular course of business paid to their brokers or their representatives a brokerage fee.
2. Direct sales, which included sales in the smaller markets where the Fruit Growers did not have sales representatives, and where no brokerage would be paid.
3. Commission sales, which included cars on consigned basis and for which no buyer was found prior to the arrival of the car at destination.
4. Resales, which included all brokerage and direct sales after the original purchaser had rejected the shipment.

The schedule of charges for the above classes varied, being low in the case of direct sales and twice as much in the case of sales through brokers or on resale through brokers. In the case of commission sales through the Fruit Growers jobbing houses the charge was to be on a percentage basis.

In the writer's opinion there were practically no district offices of the Fruit Growers in position to serve the Minnesota Potato Exchange. So far as could be learned, only two such offices actually served the sales manager in any appreciable way. It was merely a case of operating through ordinary brokerages. In an extended trip the writer conferred with more than a dozen of these brokers, and so far as could be learned, these connections were not restricted in any way to the American Fruit Growers, Inc. In every case they were acting as brokers for other national sales agencies, as the North American Fruit Exchange, and for large shippers from Maine to Nebraska. They were merely the other fellow's buying agents.

Let us take an individual case for analysis. A well known broker in a southern state was acting as broker for the American Fruit Growers, Inc. in

that section and was therefore sales representative locally for the Minnesota Potato Exchange. He was also broker for the North American Fruit Exchange office in Minneapolis, which was shipping potatoes heavily. He was broker for several Maine seed potato shippers, several Wisconsin seed potato shippers, several of the large dealers in Minnesota, and for both certified and standard seed from Nebraska. This man stated to me that he got \$8.00 or \$10.00 a car on a Minnesota Potato Exchange sale, \$15.00 to \$20.00 per car on a seed sale for Maine, and \$25.00 per car on a seed sale for Nebraska. He admitted candidly that he was working for his own best interests. The writer learned of several cases where he quietly did all in his power to oppose the sale of Minnesota seed to the end of getting larger brokerages on other producers' seed.

Another example may be of interest. One of the very large brokerage companies operating in the central states is representing several large sales agencies. As a test proposition the writer offered this firm \$18.00 instead of \$10.00 per car as a brokerage fee, and asked in return a special sales service. The results were astounding. This firm got out a special advertising circular and mailed it to all regular customers and got more orders at a premium price than could be filled from the stocks at hand.

The Minnesota Potato Exchange could have made direct connection with any of the brokers it used while working through the American Fruit Growers, Inc. Operating with a sales manager of its own through these same brokers it would have had the same sales efficiency that it did have, and save several dollars per car. Without question the money paid to the American Fruit Growers Exchange could have been added to the brokerages of a more limited number of selected firms and commanded much greater effort on their part to the end of securing better prices and deliveries more apt to stick.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be clearly documented, including the date, amount, and purpose of the transaction. This ensures transparency and allows for easy reconciliation of accounts.

2. The second section focuses on the role of the accounting system in providing timely and reliable financial information. It highlights that a well-maintained system can help identify trends, forecast future performance, and support strategic decision-making. Regular audits and reviews are essential to ensure the integrity of the data.

3. The third part of the document addresses the challenges of managing complex financial data. It suggests that using modern accounting software can significantly reduce the risk of errors and streamline the reporting process. Additionally, it stresses the importance of training staff to use these tools effectively.

4. The final section discusses the impact of financial reporting on stakeholders. It notes that clear and concise reports are crucial for building trust and providing a clear picture of the organization's financial health. It also mentions that consistent reporting can help attract investors and secure financing.

In conclusion, the document underscores the critical role of accounting in the success of any business. By adhering to best practices and leveraging technology, organizations can ensure their financial records are accurate, up-to-date, and useful for all levels of management.

In the writer's opinion, the American Fruit Growers, Inc. and the old North American Fruit Exchange were both very loosely knit organizations, not suited for the handling of potatoes. They may have a more satisfactory sales record for fruits. No organization can pose as a sales organization when all its representatives admit being a buying organization whose natural interests are those of retaining a local clientele.

A sales organization must be in position to fight, if need be, to protect its own interests. Marketing conditions in the produce business have been through a period of great demoralization, and it has been difficult for dealers to survive. Perhaps a sharp practice has crept in in the sales in many cases because of the necessity to take advantage of every straw or sink. In the writer's opinion, a sales agency must be a sales agency, and must be employees on some sort of basis representing the firm and no competing firms. It would be far better to have ten or twelve real representatives than to have the loose system now prevailing.

In periods of declining prices and in low price years a very large per cent of all shipments have been in trouble at the point of delivery. Part of this has been the fault of the shipping organization and part is just a condition of the times. The second greatest difficulty experienced by the Minnesota Potato Exchange was the delay in getting returns from sales. So many of the cars were in trouble that there was endless correspondence before settlements were made. Because of the lack of operating capital it was impossible to make suitable advances to growers through their local associations. These delays naturally cut down the volume of shipments through the Exchange. If the sales representatives had been vitally interested in their connection with the Minnesota Potato Exchange, either because of having more attractive brokerage contracts, or because of being directly employed, they

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be clearly documented, including the date, amount, and purpose of the transaction. This ensures transparency and allows for easy reconciliation of accounts.

In the second section, the author outlines the various methods used to collect and analyze data. These methods include direct observation, interviews, and the use of specialized software tools. Each method is described in detail, highlighting its strengths and limitations.

The third section focuses on the results of the data analysis. It presents a series of tables and graphs that illustrate the trends and patterns observed in the data. The author provides a detailed interpretation of these results, explaining their significance in the context of the study.

Finally, the document concludes with a summary of the findings and a discussion of their implications. The author suggests several areas for further research and provides recommendations for future studies. The overall tone of the document is professional and objective, reflecting the scientific nature of the work.

would have taken care of these settlements and collections to much greater advantage. Getting the money is as much a part of the salesman's job as it is to make the sale.

Two important reasons, then, for the failure of the old Minnesota Potato Exchange were lack of an interested and active sales agency, and the failure to get its money returned through its offices to the local associations.

Minnesota Potato Growers' Exchange

After the failure of the Minnesota Potato Exchange many people believed that a new exchange could be constructed. Aaron Sapiro came to this state in an advisory capacity. An act was passed by the State Legislature providing for a cooperative marketing along the lines advocated by Mr. Sapiro. This is similar to the marketing law as passed in most of the states of the Union. The main difference in the style of organization was that the growers were put under contract, and that all control of warehousing, distribution and sale were handled by centralized authority. Instead of being merely a sales agency, the organization was to attempt to handle the job from harvest to final point in distribution.

The first great reason for the failure of this organization was the lack of an efficient sales agency, as in the case of the Minnesota Potato Exchange, the new organization contracting with the Federated Fruit Growers, Inc. The same old story of turning cars loose to buying agents and delay in settlements was repeated over and over. The growers could not wait for returns. They have been criticised for not being loyal, for breaking their contracts. They were forced to break their contracts to get money to live.

Mr. S. Rubinow, who handled the organization of the Exchange, and was its general manager during its first and only year, wrote an article which

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was published in the February "Country Gentleman". Among other things Mr. Rubinow stated that there was lack of capital, that the members put little money into the enterprise, that less than 3,000 out of the total of 14,000 growers paid their membership fees at the time of joining. One entire year was required for building the Exchange. The total cost was approximately \$80,000.00. There were approximately 14,000 growers, located in 33 counties, contracting 165,000 acres. There were 369 loading and shipping points, with 233 warehouses. The funds that were used for organization were borrowed from business men, bankers and railroad officials.

Mr. Rubinow stated that delay in making returns was the next big factor, but did not enter into the reasons for such delay. Lastly he mentioned the inexperience of officials.

The financial statement following this discussion shows other reasons. Here we have an organization handling nearly 10,000 carloads of potatoes, with total net receipts of \$2,369,122.69, which appears to be, as is to be expected, considerably less than the average market for the same period. However, out of these net returns only \$849,421.93 were returned to the growers, only a small part of the total, and this after many months of delay.

Any organization, to survive, must be developed among friends of a cause and not forced upon people in a mass. The net cost of organization because of the high pressure sales methods required to get memberships, over and above the membership fees finally collected, was \$35,420.97.

Because of the nature of the organization, great administrative expense was necessary, and a total of \$93,371.24 was expended.

The local warehousing expense, not including the \$37,625.08 expended by the warehouse department, varied from .2388 to .3106 per cwt. The total amount expended by the warehouse department in local and central warehousing

Handwritten text, likely bleed-through from the reverse side of the page. The text is extremely faint and illegible due to the quality of the scan and the nature of the bleed-through. It appears to be a continuous block of text, possibly a letter or a page from a book, but the specific words and sentences cannot be discerned.

was more than the amount returned to growers, \$851,474.45.

Great effort was made in a publicity department to keep the growers in line. The net expense of this department, over and above subscriptions to a paper and advertising received, was \$16,475.44.

\$161,222.37 was expended in warehouse investment, and an interesting point in this connection is that a large part of this investment was made in a purchase of a warehouse from a potato dealer who became manager of the warehouse department.

In the writer's opinion, the Minnesota Potato Growers Exchange undertaking to operate warehouses from a central office and expending a total of over a million dollars in warehouse investment and warehousing expense was the greatest reason for failure. It is impossible to conceive of an organization expending up to nearly twice as much for the warehousing of its products as other firms, expecting to survive in a competitive business.

Supplementing Mr. Rubinow's statement of delay in returns being the chief contributing factor for the failure of the exchange, it would seem that if the local organizations and growers had known that so much of the returns was going to be expended for overhead and warehousing expense, and they were going to get so little for their crop, the Exchange would have gone to the dogs long before it did, and almost before it got started. It was the living in hopes that dragged the Exchange throughout its first year. It would seem that only great ignorance or purposeful mismanagement could result in such a failure.

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DATA FROM EXAMINERS REPORT TAKEN FROM EXCHANGE BOOKS AUG.31,1925

(These figures were altered slightly in final audit.)

Volume sold	3,729,067.77 cwt.
Net receipts (63.5 cts. per cwt.)	\$2,369,122.69
Paid to members	\$ 849,421.93
Organization (net cost)	35,420.97
Administration	93,371.24
Warehousing expense	851,474.45
Selling "	184,148.39
Publicity (net expense)	16,475.44
Interest & discounts	23,480.32
Warehouse investment	161,222.37
Office equipment and autos	17,115.38
Legal reserve & undistributed	113,328.96
Inventory (other than above)	<u>24,519.85</u>
	\$2,369,979.30
Other income	<u>856.61</u>
	\$2,369,979.30

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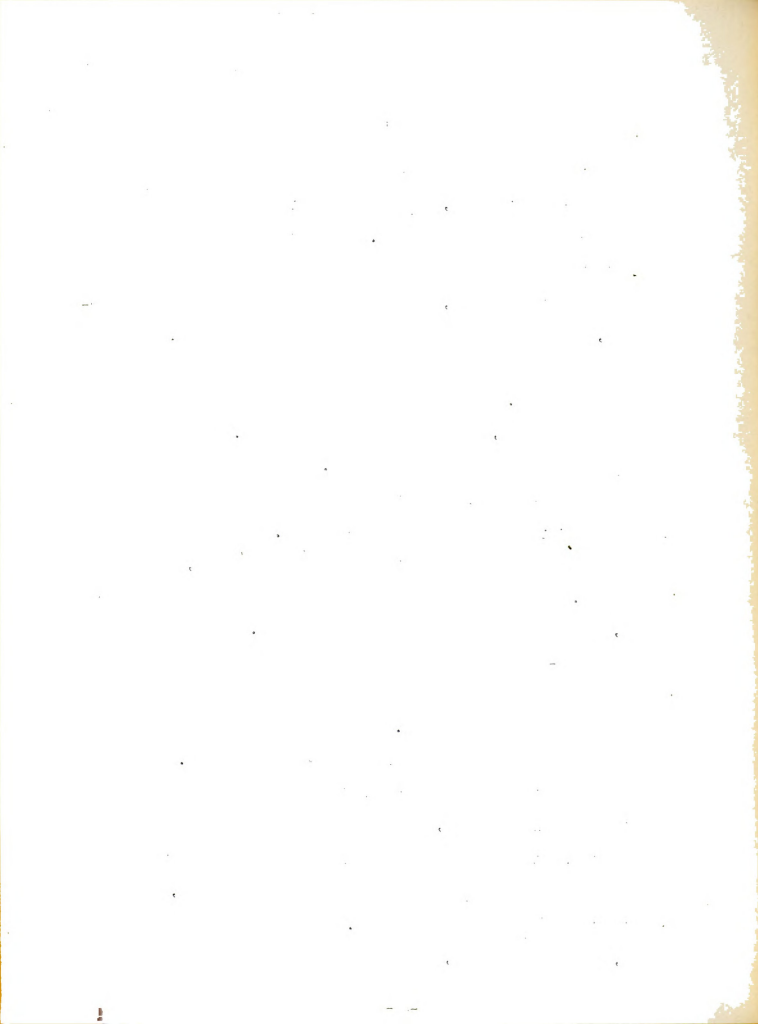
SPECIFIC RECOMMENDATIONS FOR FUTURE DEVELOPMENT

In making any suggestions for the further development of the seed potato industry in Minnesota, we must keep in mind that such development must come from the present background. It would seem that since local leadership is necessary and that different districts in the state are adapted to certain varieties, and that different districts produce different types, that the districts must enter the market separately. One of the most important requisites for successful business is individual and community reputation. Large growers will probably wish to continue to operate as individuals, retaining freedom in operation. They will wish to retain their customers from year to year. They will be afraid to lose the personal contacts which they might lose if they turned their stocks over to an individual or to an agency for selling.

In the case of the Southern Minnesota peat land project, the situation is now ideal. Should at any time the services of the specialist in charge be lost, the growers should organize and replace him.

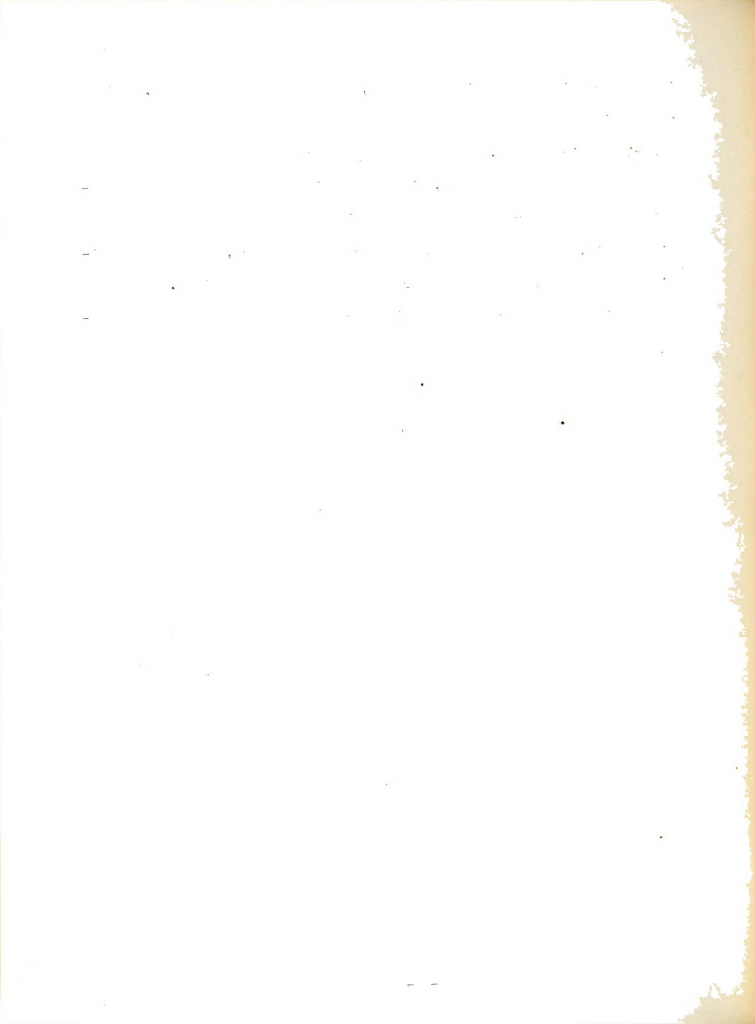
In the Cut-Over district in Northern Minnesota seed specialists must replace county agricultural agents at any time in case the services of the latter are lost to the communities. Otherwise these small growers would not have the guidance for successful production and marketing.

In the Red River Valley production will and should continue under the direction of local leadership, men who will guide production and handle the marketing. It would seem that the larger part of the Red River Valley certified seed potatoes should be marketed by one organization, whether grown in Minnesota or on the Dakota side. The Red River Certified Seed Company, located at Morehead, has had greatest experience at this date



in the marketing of Red River potatoes, whether Chios or Cobblers. This company is fully competent to handle shipments for all smaller operators desiring their service.

In addition to the above, without question there will always be something of a field for a dealer operating in certified seed potatoes out of Minneapolis, somebody in position to furnish mixed cars, somebody in position to act as a buying broker for large Southern associations. It would seem that there is a real opportunity for an individual with proper qualifications to establish himself as a buying broker for seed stocks for Southern seed dealers and users.



POTATO INSPECTION AND CERTIFICATION IN MINNESOTA

1925 (Extracts from M.D.A. Bulletin No.47)

For the information of those interested in the purchasing of Minnesota certified seed potatoes, the rules and regulations under which the potatoes were inspected are contained in this pamphlet.

Every grower having his seed potatoes inspected is required to grow an isolated seed plot each year. This seed plot should be at least ten rods from the nearest potato field. New applicants should secure their seed potatoes from a grower who maintains a seed plot unless they have grown their own seed plot. The maintenance and proper care of an isolated seed plot each year is a means of securing pure, vigorous, disease-free seed potatoes for the field intended for certification and lessens to a large degree the chances of rejection. A seed plot properly cared for is also a means of maintaining foundation stock for certification. This is especially important with the Bliss Triumph on account of the prevalence of Mosaic in this variety. It is strongly recommended that such a seed plot be maintained from hill selected stock.

Inspections--

Object: To obtain the following information:

Stand	Freedom from disease
General vigor	Freedom from insect injury
Varietal purity	Trueness to type

Number: Two field and one grading inspections are made.

First field inspection is made at flowering time. Second field inspection is made about a month later to check up on the presence of mixtures, diseases, etc. Third inspection is made at the time the potatoes are shipped.

Requirements--

Varieties:

Only the following standard varieties for Minnesota will be considered for certification:

Early Ohio	Green Mountain
Irish Cobbler	Russet Burbank
Bliss Triumph	Burbank
Spaulding Rose No. 4	Rural New Yorker

Potatoes grown under any other name but having the characteristics of any of the above named varieties will be certified under the name of the variety to which they belong.

Stand--

A large number of missing hills shall be cause for rejection if due to diseases.

General Vigor--

Potatoes will not be eligible for certification if the field contains more than 3 per cent of weak plants.

Varietal Purity--

Fields containing any varietal mixture at the time of first inspection will not be eligible for certification unless all foreign varieties are removed by the grower under the direction of an inspector. A field containing more than 2 per cent varietal mixture will not be eligible for certification under any circumstances.

Freedom From Disease--

The following percentages of disease will disqualify seed stock for certification at the field inspections:

Vine Diseases	First Inspection	Second Inspection
Mosaic.....	5%	3%
Leafroll.....	2%	1%
Spindle tuber.....	2%	1%
Yellow dwarf.....	1%	1%

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Vine Diseases	First Inspection	Second Inspection
Streak.....	1%	1%
--All combined.....	5%	3%
Wilt diseases.....	2%	0%
Blackleg.....	2%	0%
Rhizoctonia (Record presence)		
Weak Plants.....	3%	1%
Varietal mixtures.....	2%	0%
Late blight.....	0%	0%
Giant hills.....	1%	0%

If any of the diseases are present in a field in amounts less than the tolerance indicated, the infected plants must be removed before the second inspection. Diseased plants should be removed and destroyed as soon as possible after the first inspection, before tuber formation takes place. If tubers are formed, they must be removed. The early removal of diseased plants will aid greatly in preventing the spread of disease to healthy plants.

A field under inspection must be free of weeds and serious insect injury. Excessive amounts of weeds and serious insect injury will disqualify a field.

Certain weeds such as the nightshade and wild rose are important in the dissemination of the Mosaic disease.

Seed Treatment--

It is highly recommended that all potatoes to be planted for inspection be treated with the hot formaldehyde solution. Corrosive sublimate is also satisfactory but in certain sections of the state where the water is alkaline the corrosive sublimate will not give satisfactory results.

Grading--

Every lot of certified seed potatoes offered for sale must be graded according to Minnesota Certified Seed Grade requirement. These requirements are as follows:

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Minnesota Certified Seed Grade shall consist of sound potatoes which have been field inspected by the Minnesota State Department of Agriculture and which have passed the field inspection requirements, are of one variety, and which at time of final inspection are found to be practically free from dirt or foreign matter, frost injury, sunburn, second growth, growth cracks, hollowheart, cuts, soft rot, dry rot and damage caused by disease, insects or mechanical or other means.

Scab.....	Slight infection allowed
Rhizoctonia.....	Moderate infection allowed
Stem end discoloration.....	5 per cent tuber infection allowed
Spindle tuber.....	1 per cent tuber infection allowed
Late blight rot.....	0 per cent tuber infection allowed
Powdery scab.....	0 per cent tuber infection allowed
Potato wart.....	0 per cent tuber infection allowed

Note--

Scab--Slight infection shall consist of not more than an average of 3 scattered spots of shallow scab on not more than 20 per cent of the tubers.

Rhizoctonia--Slight infection shall consist of a scattering of Rhizoctonia bodies (sclerotia) less than 1/8 inch in diameter, over the tubers.

Moderate infection shall consist of: (1) A scattering of Rhizoctonia bodies (sclerotia) a majority of which are 1/8 inch in diameter over the tubers. (2) Tubers containing more than 25 or less than 50 Rhizoctonia bodies (sclerotia) varying in size from 1/8 inch to 1/4 inch in diameter.

Type--

Ninety per cent of tubers must conform to characteristic type of the variety.

Size--

As per sales agreement. Otherwise the diameter of potatoes of round varieties shall not be less than one and seven-eighths (1-7/8) inches, and of potatoes of long varieties one and three-quarters (1-3/4) inches.

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In order to allow for variation incident to grading and handling, 5 per cent by weight of any lot may be under the prescribed size. In addition, 3 per cent by weight of any such lot may be below the remaining requirements of the grade except that no soft rot due to Blackleg or Late Blight shall be allowed.

All inspections are to be made by duly authorized inspectors of the Minnesota State Department of Agriculture.

All potatoes certified by the State Department of Agriculture are given two field inspections. Tags are issued to the growers for attachment to sacks. These tags are an indication that the potatoes have met the field inspection requirements. On the reverse side of the tag is a summary of the Minnesota Certified Seed Grade requirements. Every car of certified seed potatoes must be inspected for grade before it leaves the state. Every car inspected will have a card tacked on the inside wall of the car as a record that proper inspection has been made. A grading inspection certificate containing a detailed report of the inspection is then issued to the grower and a copy sent to the purchaser on request.

OFFICIAL TAG
Minnesota Inspected and Certified Seed Potatoes
Variety Early Ohio

Grown by	Field No.
<u>Minnesota</u>	<u>In</u>

This tag must be so attached as to constitute a seal and to necessitate the breaking of wire in emptying container. Its use for any stock not inspected by the state of Minnesota Department of Agriculture is a violation of the Potato Seed Certification Law and constitutes a gross misdemeanor.



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OFFICIAL TAG
Minnesota Certified Potato Seed Grade

Defects Allowed:
 Common scab-slight infection
 Rhizoctonia-moderate infection
 Stem end discoloration-5% of tubers
 Spindle tuber-1% of tubers
 Late blight rot-none
 Black leg rot-none
 Powdery scab-none

5% by weight under size allowed.
 3% total following defects allowed: dirt, foreign matter, frost, sunburn, second growth, hollow heart, growth cracks, cuts, dry rot, insect injury.

90% of tubers must conform to characteristic type of variety.
(N. B. The Minnesota regulations require a state certificate of seed grade quality with each car shipped. Ask your dealer to show you this certificate.)



Summary of Seed Potato Inspection Work in Minnesota, 1925

	Fields	Acreage
Total number fields inspected	536	4,664
Total number withdrawals and rejections.....	138	1,173
Total number fields passing field inspection...	398	3,491

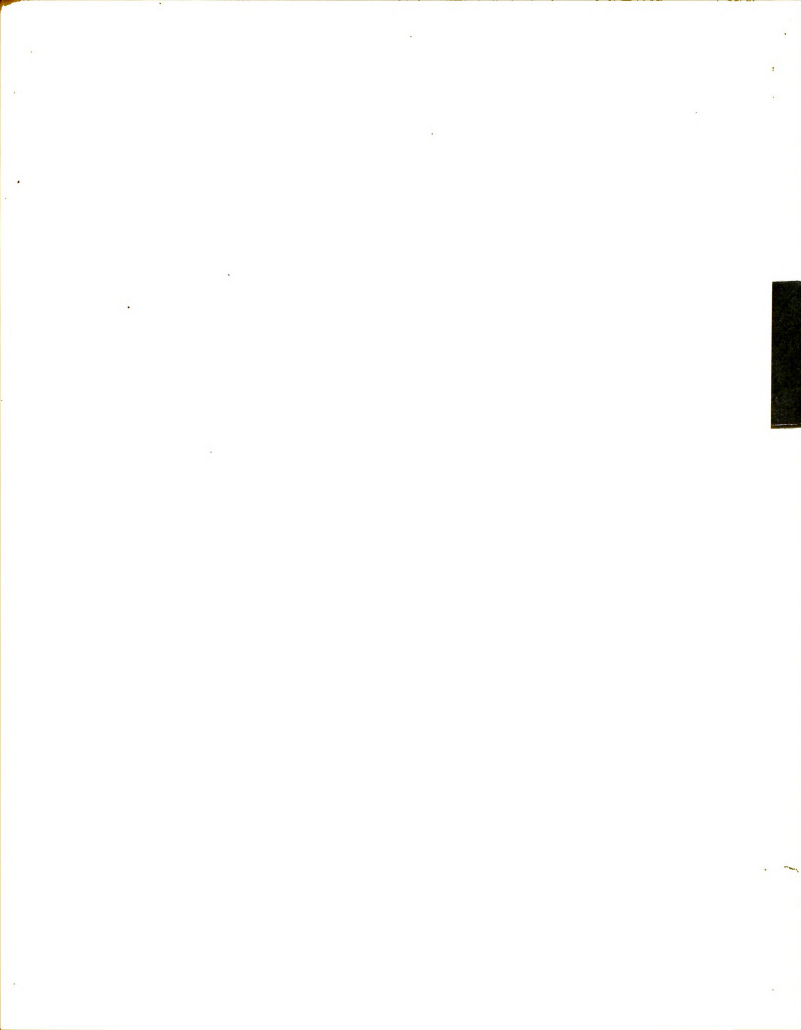
Approximate Number of Bushels of Each Variety Certified

	Acreage	Bushels
Early Ohio.....	1,013.75	101,375
Irish Cobbler.....	1,327.75	258,965
Bliss Triumph.....	171.5	34,200
Russet Burbank.....	924.25	194,040
Green Mountain.....	38.75	5,850
Rural New Yorker.....	10.5	1,575
Burbank.....	4.0	500
Spaulding Rose.....	<u>.75</u>	<u>100</u>
Total.....	3,491.25	596,605

About 25 per cent of this amount will be used for seed stock and removed in grading, leaving about 75 per cent to be sold as certified seed.

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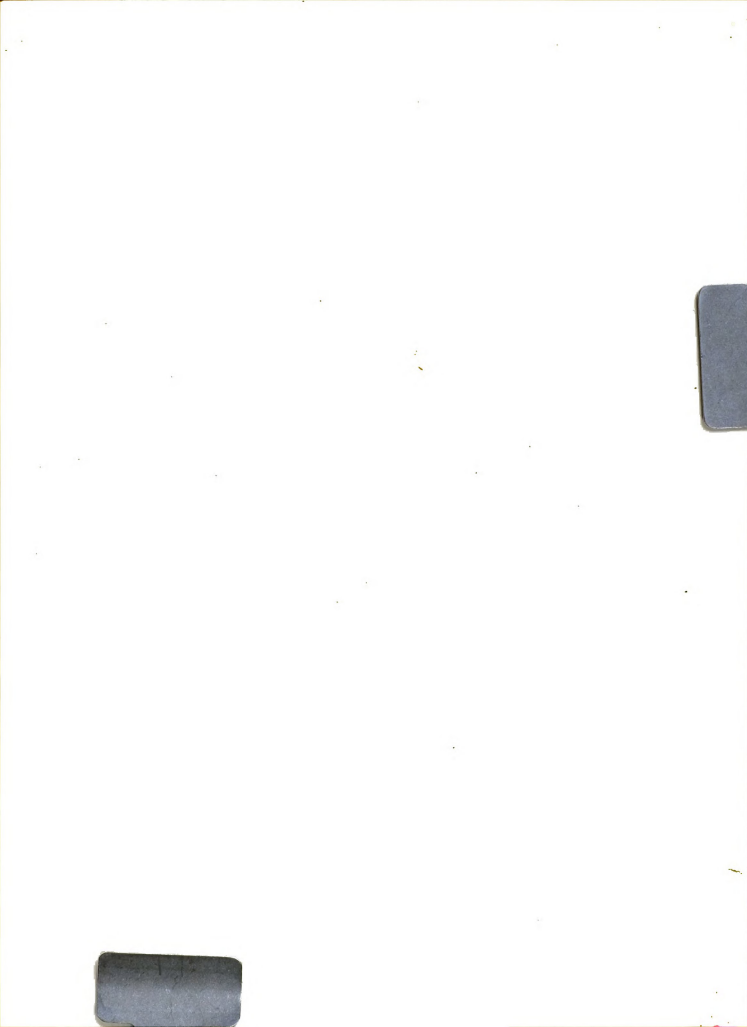
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