

THE PRAIRIE FARMER

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LET US HELP THE SUFFERING FRENCH.

[[A people dear to us are suffering from war, pestilence and famine. Every calamity has come to them in turn. Last summer a terrible drought, such as threatened us, blighted the grain in the fields and burned up the herbage in the pastures. The leaves of forest trees were looked to, to furnish support for cattle during the approaching winter.

But before the scanty crops were gathered, before the snows of winter fell, an army, numbering at least a million men, with all the terrible enginery of war, swept over this region already desolate. The recollection of war is too fresh in our minds for us not to know what its ravages are. Vineyards have been laid waste; cities have been sacked; villages burned; houses and barns consumed; the vegetables and animals, suited to the sustenance of man, have been destroyed. The poles of the hop-yards, the trellises of the vines and the fences of the little enclosures, have gone to kindle the camp fires of an enemy. Even the forest trees have been felled that cannon might do a surer work. A sixth part of beautiful France has thus been scourged by war.

The people to whom these calamities have come are our friends. They were the friends of our fathers, before we were born; the friends of our country, before it had a name. Now, as always before, no name but one is so dear to the ears of this people as that of America. Next to Washington we reverence the name of La Fayette. When our provisional government was too poor to purchase rations for its soldiers, French money bought them food. In the most memorable battles of the Revolution the blood of French soldiers flowed freely. Shall we withhold food from the descendants of the men who gave us liberty?

We who dwell in the valley of the Mississippi, should not forget that French enterprise opened up this beautiful region to civilization. The canoes of French discoverers first descended our rivers, to most of which they gave the names. The English tongue had no fitting name for the vast plains we cultivate, but the French furnished one—the Prairies. Frenchmen planted here the first vines and orchards of pear and apple, some of which remain. They gave the name to the Prairie State and to its earliest capital. Our ancestors drove them from Kaskaskia, Vincennes and Cahokia, but they treasured not up the wrong. Shall we who have succeeded to these vast and fertile possessions, by a very questionable right, fail to return some of the products they have yielded to the heirs of the men who were dispossessed?

The clouds that passed high over the fields of suffering France, broke in fullness over ours. If the farmers of the Northwest suffer at all it is from very plenty. Our crops have been too abundant to warrant remunerative prices. A ship load of grain and provisions could be spared from every county and no one be impoverished, since what remained would be worth a greater price. And now while we are debating, in view of the present surplus, how many of our broad acres to sow next season, how fares it with our brother farmers in unhappy France, whose estates are only reckoned by rods?

Alas, for the once happy peasant of vine-clad France. The little field which he once tilled is a minute portion of a battle field that stretches for leagues away. Bomb shells have rent the ground once turned by his plow-share. His horses fell in a cavalry charge; his oxen were devoured by the hungry enemy. Even the thatch of the roof of his cottage has been taken away. His last measure of grain has been consumed. Where will he sow his little field? Shall seed time come to him and find him destitute of the means to plant a field that his children may live?

The suffering French peasant woman looks to the future almost without a hope. Her protectors are slain in battle, suffering in hospitals, imprisoned in barracks or maimed and disabled for life. The manufactories that once furnished her labor are closed or destroyed. The flowers in the little garden have been trampled down by the feet of invading soldiers. The pets of her household, if yet the remnant of a home remains, have been destroyed through wantonness, or sacrificed for food. Her children call on her for bread, and she has none to give; while lips too young to speak, grow white with hunger. Shall we, whose warehouses are full to overflowing, withhold from these innocents the means to live? Must starvation finish the work that drought and war began?

In the name of gratitude for past favors; in the name of humanity, which outsteps



EAGLE CULTIVATOR—MANUFACTURED BY RAFF, COCK & CO., DAVENPORT, IOWA.

national boundaries and counts every man a brother; in the name of a common civilization; in the name of the Christian religion, we answer no. The voice that said, "Cast thy bread upon the waters, and thou shalt find it after many days," is speaking now and to us. The law of nations may forbid the people of an established republic giving assistance to the dictators of Christianity alike conjure us to send seeds and provisions to the suffering French peasantry, who had no voice in bringing on the war, but who are the victims of kingcraft and unrelenting despotism.

To inaugurate this grand measure for relief, which we trust, may extend over the whole country, THE PRAIRIE FARMER proposes to lend its influence and devote its energies to the raising, by contributions from its patrons and others, in the country and the cities of the Northwest, the seeds of cereals for planting the desolated fields, and provisions for the sustenance of the laboring people, sufficient to load a vessel at the seaboard, which shall be despatched at the very earliest possible moment for the shores of France. On its arrival at its place of destination the cargo will be placed under the control of the French authorities, who will pledge themselves to see to its legitimate and just distribution. Our guarantee for this, without positive assurance, which will soon be obtained from official sources, lies in the fact that similar efforts in England have been thus willingly and heartily seconded by the French authorities.

In this humble effort to enlist the active sympathies of our people in this noble charity, we are earnestly seconded by the French Consul to this city, and by all the leading French citizens. We have no doubt but the liberality and the humane feelings for which the people of the Mississippi Valley are so renowned, will lead them to help on the good cause with unparalleled alacrity.

It is well to have it distinctly understood that this is no partisan movement for the aid of the French government or the French army. The necessity of aid remains the same, whether the French or the Germans are victorious, and whether the war rages a month or three months. The end must come soon, and doubtless before these grains can reach the husbandman, for besieged and starving Paris is being shattered to ruins by Prussian bombs and balls, and human bravery and human endurance, it would seem, can hold out but little longer. With peace will come such tales of destitution and horror as the world scarce ever knew. Then shall we all rejoice that our mite was early cast in, to aid a war-stricken and war-devastated people and country.

The ways and means for receiving, storing and forwarding contributions, are not yet decided upon. In our next paper we hope to be able to lay these matters before the public, and to give a list of such seeds and articles of sustenance as are most needed, and can be best collected and forwarded. We appeal to our readers and to all others, to consider well what they may do, and to open wide their hearts and hands to

"Help Suffering France." Agricultural Societies, Farmers' Clubs, Pork Packers' Associations, Boards of Trade, as well as individuals, are included in our appeal to help on THE PRAIRIE FARMER FRENCH BENEFITATION.

THE PROPOSED EXHIBITION OF SWINE.

The decision of the Illinois Swine Breeders' Association, to hold a Swine Fair next fall, is an important movement to the swine and pork interests. It will be the first distinctive exhibition of the kind held in this country. Of late years, the swine department at our western state and county fairs has been one of great and constantly increasing magnitude. Especially has this been the case at the Illinois and St. Louis fairs. And it may be said, with truth, that at no previous time has the interest in this class of farm stock and produce, all over the west, been so great as at this moment. Neither has there been so much money invested in the business of pork production, or so much effort made to improve the stock of hogs, or to breed the purest and best races, as during the year just passed. All these things were well understood by members of the Association, and they were fully justified in the belief that the Swine Show may be made a very great success. Indeed, if held at a convenient point, with the details of management thoroughly attended to, there is no doubt whatever, that this show will be a memorable occasion, and one that it will be worth the while for people, far and near, to attend.

In a commercial point of view the result will be of great importance. It will bring breeders of fine hogs, farmers who breed for pork alone, packers who know what style of hogs are demanded for the different markets, and the consumers of pork, together, to observe and consult.

The place for holding the exhibition is not yet decided upon; still there is little doubt, we apprehend, but that Chicago will be the point. This is the great pork market, not only of the state, but of the country. It is the great railroad center of the state, and accessible from all points. There seems to be every assurance that the Pork Packers' Association, of this city, will join heartily with the breeders of swine and the producers of pork in promoting the success of the show. In fact the pork dealers here cannot afford to be lukewarm or niggardly in this matter. It is for their interest to do all in their power to secure its success. In the matter of moneyed liberality they have the example of the St. Louis packers before them, in the way of large premiums, and they believe, and the farmers expect, that they will fairly outdo their rivals in this respect. It is certain also that the Stock Yards' Company will offer large inducements to the Breeders' Association to locate their exhibition here.

Without further words, at this time, it may be safely predicted, as we said before, that the first Swine Exhibition of the country will be a very notable success. Five thousand of the finest specimens of hogs that

this country affords will be no large number to expect at this exhibition, if adequate inducements are offered to exhibitors.

WHEN SHALL WE SELL OUR PRODUCE?

Farmers are apt to prophesy as to prices in the future; there is perhaps not one that can plead exemption from the vaticination. Now, what does this show very clearly on the face? It shows that men are aspiring to what they do not know and cannot get.

Do farmers—all of them—know as much about these things as men who are posted, make it a business to be posted, and who are among our most intelligent men?

Now the farmer cannot know. If the speculator himself is at a loss and generally "breaks," what are we to expect of the less-informed farmer—much more of the ignorant farmer—and this includes a very large class, all prophesiers?

If the argument is not strong enough against vaticinations of this kind, and of keeping and selling produce on the strength of it, this one thing ought to convince every one, to wit, that all this host of farmers differ in their prophecies. They must therefore be all wrong excepting one—and he may be in error—they may all be in error. Is the reader (a farmer) in error? He is, doubtless, but would not like to own it; our pet notions take possession of us and control us. Hence so much grain, and pork, and wool, and hops and produce in general are held in anticipation of a higher price; whether the price is a good one now or not, we are too apt to believe as we wish, especially as we feel.

Shall we then still be trifling with the future as we have done? Or shall we save our interest, the loss from mice, rats and insects, and possibly fire, and the other many incidents of loss? Then there is the care and the fear.

On the whole, it has long ago been decided by the observing (who observe for us, mind you, as well as for themselves) that it is best to sell when you have your product ready, and get it ready as soon as you can.

There may be an almost certainty of better prices, "the thing can't be otherwise," so we think, from the appearance of great scarcity and other cause and causes. But we must understand there are men who see this thing in a different light; they see it different because they have more light on the subject; they know it much better than we do, having the means at hand. They see grain (where we do not) in some parts of the country, or in storehouses, or in Europe and the East, for these men are posted; it is their business to be posted, and they control the market measurably. It is they who buy and sell, and it becomes them to be sharp, not to trust to great profits but small and safe gains; this is the true sphere of the speculator.

Thus we see that in all cases we should sell when we are ready. There may be exceptions, and are, but when the rule is followed there is safety and certain profit.

F. G.

LAPPING FURROWS.

In a recent number of THE PRAIRIE FARMER, which I have lent or mislaid, an article from a foreign journal on the relative width and depth of the furrow slice for good plowing—lapping, not laying flat—was of much interest to me. It was stated, as I understood the writer, that the depth required for a given width of furrow would be found by squaring the width and taking the square root of half that amount. That seems to be on the assumption that the exposed part of a furrow, not covered by the lapping furrow, is or should be just equal to the thickness of the lapping furrow. Then, as the lines made by a section of two furrows would form a right angle, according to a proposition in geometry, the sum of the squares of these lines would be equal to the square of the line joining their extremities—the measure between the ridges of the upturned furrows—which line is equal to the width cut by the plow. The square root of the sum of these squares is equal to the width of the furrow. But must the furrow, for good work, lap just so far and no less, leaving exposed, of the inverted sod, an amount just equal to the edge of the lapping furrow? Could not furrows be made to lap which are 11 inches wide and 6 inches in depth, leaving exposed 8-2 inches?

I would also ask, as I am only a learner in the whole matter of scientific plowing, if it requires a plow of a peculiar form for lapping the furrows, or if the common sod plows sold at Quincy and St. Louis will do the work well, either to lap or lay the furrows flat?

MARION CO., MO.

TRANSFERRING PIGS.

Having a Chester White sow that brought more pigs than she could raise, and not liking to "knock them in the head," I took some of them away. These I put in a four bushel wheat sack together with four others, born the same day, of another sow; tied the bag up and put them away in the "brush" to tumble and roll about, out of hearing of the mothers. The sow to whom the four pigs belonged was very uneasy at losing her pigs when so young. In the course of an hour I emptied the whole lot out before her. She looked at them very slyly, turned them over with her nose, smelled first one and then another, but was quite unable to distinguish her own from those of the Chester White sow. So down she lay for them to suck, and took to the whole lot at once.

JOHN WHATMORE.

BRIDGEMOUTH FARM, DUNLEITH, ILL.

EAGLE CULTIVATOR.

This cultivator, illustrated above, is constructed with wrought iron beams and cast-iron arch or axle. The shovels are attached to the beams by means of a bolt and wooden pin, so arranged that the pin is cut off when the shovel strikes roots or other obstructions, and preventing thereby the sudden shock to the beams, by which, in the ordinary cultivator, they are broken or sprung. The proprietors desire agents in every county in the West.

THE GRASSES.—SHALL WE SOW A GREATER VARIETY?

The value of grasses for pasture and hay for our stock is hardly second in importance to that of their grain for human food. In new countries of the United States, about the only grasses cultivated are timothy, *Phleum pratense*, frequently sown with clover on dry land; and red top (*Agrostis vulgaris*) on moist low land or marshes.

Besides these, after a few years, several others creep in and increase the variety and improve quality of old meadows and pastures. Orange County, in the State of New York has become famous throughout our land for the excellent quality of her butter and cheese. Great care is taken in their manufacture, but the selection of grasses for pasture is by no means overlooked. In the transactions of the Agricultural Society for 1865, X. A. Willard reports that he made extensive inquiries of the best dairymen as to the kinds of grasses employed. Some affirmed that it was impossible to obtain the best flavored butter, or so large a result from recently reseeded grounds of clover and timothy. The grasses there found in old pastures, are June or Kentucky blue grass (*Poa pratensis*), the fowl meadow grass (*Poa serotina*), meadow fescue, (*Festuca pratensis*) red top, (*Agrostis vulgaris*), the wire grass, (*Poa compressa*), and the sweet-scented vernal and vanilla grass. Timothy, orchard grass, red clover and other forage plants are also grown in new pastures and meadows. Here are mentioned six species for pastures, and a fewer number for meadows.

An elaborate article on the grasses of Pennsylvania, by J. M. McMinn, appeared in the New York Tribune two years ago. There, in the fine grazing fields, where considerable attention had been given to the subject, are found about six leading grasses unless a determined destruction of all but one or two had been practiced. In the pastures are found green grass, (*Poa pratensis*)—observe the common name is different from the one used in New York—timothy, red top, false red top (*Trisetum selerioides*) blue grass (*Poa compressa*) fescue grass, (*Festuca pratensis*). In the meadows are found rough meadow grass (*Poa trivialis*), dwarf meadow grass (*Poa annua*), feather grass (*Holcus lanatus*), fall meadow grass (*Arrhenatherum avenaceum*), sweet-scented meadow grass (*Anthoxanthum odoratum*), and manna grass (*Poa aquatica*). Others, which it might be tedious to mention, are found in their orchards and shaded lawns, others on dry hills, others still on lake meadows, and yet others mostly different from any of the rest on marshes of the sea shore.

In various parts of the Southern States are found species differing from any yet mentioned. If some of these best suited to a locality are wanting, others will take their places, though they may not be exactly adapted to the soil and climate.

Let us take a glance at our English brethren across the water. Although some of us are fond of saying that they do not equal the people of the United States in plows, sewing machines, reapers, Yankee notions, and some other modern inventions, yet they have for a great many years been celebrated for their fine pastures and meadows. They have tried a great many valuable experiments in this direction, while in our younger country, with its vastly greater variety of soil and climate, very little has been done. In a prize essay by Prof. James Buchanan, of the Royal Agricultural College, 1854, he divides the grasses into five groups.

1st. Jungle or bush grasses; he mentions nine of these. 2d. Aquatic or water grasses; he mentions eight of little value. 3d. Marine or sea side grasses; he gives names of five. 4th. Meadow or pasture grasses; he mentions twenty or more, all of which are cultivated and prove valuable. This does not include a large number often called grasses, as red clover. Though selections are made for certain soils, it does not stand to reason that one or two grasses are best for all localities, any more than one medicine is good for all diseases. The Englishman selects some kinds of grass for their soil or upland pastures, others for stiff clays, others for rich deep loams, others for meadows which are subject to periodic floods along the banks of rivers, and still others for irrigated meadows, in which the water can be easily controlled. Our English author mentions a fifth class, agrarian grasses, twelve species, though part of them are often great pests on account of their long underground roots or early seeding. Here is a contrast to the English account just referred to: S. D. Harris, in a prize essay for which he was awarded fifty dollars by the State Agricultural Society of Ohio, 1858, page 253, says: "Of the grasses that may be called indigenous and at the same time having the virtues of what are called tame grasses, there are but three

kind of culture in Ohio. These are the *Poa pratensis*, *Poa compressa* and *Trifolium repens*, and all worthy of cultivation from any source on arable land are Timothy, red top (*Agrostis vulgaris*), orchard grass, red clover, and for scarcity of crop occasionally German millet and common millet. We should suffer no loss were all the rest stricken from our fields at once." Here for most uses then, he names three grasses—and one of them a clover—and two more in extreme cases. Six species in all. Cattle, sheep and horses, would, no doubt, thrive on plenty of these, but they could hardly from experience say "variety is the spice of life." Pigs will fatten on corn and water alone, but they will be healthier with a greater variety of food and will grow more rapidly. In England and Scotland the best farmers sow as many as twenty-one kinds of grass seed mixed together. In some cases fewer kinds are sown, but we cannot read of a mixture recommended which contains less than eleven or more kinds. Who ever heard of the like on an American farm? Who dare say that one or two or three kinds are better than more for all cases, all climates and seasons, soils and uses? Are we not deficient in our attention to this important subject?

USES OF THE ROLLER.

The uses of the field roller are so many more than are generally supposed, and so important, that a small discussion will not be out of place. All good farmers have it; this is in its favor. It is cheap; any farmer can make it if necessary. But what does it subserve? is the question put by many. It subserves many uses, the simple roller does; its office is to press and smooth. To prepare the meadow for the mowing machine is considered by many to be its principal business, which it is not, for many meadows are freed from stones, and many have never had them. Still the roller is found in active use on such farms. One of the principal uses of the roller (and we think the principal) is to press the roots of the grass into the soil, roots that would otherwise have suffered and some of them withered. But press them down early in the spring and they secure moisture and nourishment. Grass entirely thrown out cannot be saved; but that which is only partly displaced may be benefited. This has been tested for years on the old homestead farm. Parts of fields that were rolled started earlier in the spring and yielded better; this invariably.

How easy it is for farmers to test this. Let them get out their roller as soon as the ground will admit, when it will readily bear the horses, and yet yielding enough to be leveled by the roller. Sometimes it is good to roll twice instead of once; we like the idea and prefer it. It does the work more effectively and permits of drier rolling, for in no case must the ground be too moist, so that it yields to the horses' hoofs and dirties the roller.

Another use of importance in the roller is the leveling of plowed land, particular sod, as in the case of corn to get an even surface. It also prevents the escape of gases thus secured. Roll the way it was plowed.

Sowed land is benefited by the roller, especially intent; this needs the packing effect of the roller. It is also good on corn ground after the corn is planted; potatoes the same; will prepare the land for the cultivator and plow.

Then there is some land that is lumpy; this needs the crushing and leveling effect of the roller. Even pasture is benefited by the roller; roll early in the spring.

Then the whole farm should be rolled; it pays, though it seems not to. Careful attention will convince any one of this, and it is the only thing that will. No one has an excuse of the time spent, as it occurs when other work is not crowding. Try the roller; test it thoroughly, and note intelligently its effect. Try it for more than a year. F. G.

AGRICULTURAL ITEMS.

AN OLD HORSE.—The Mt. Vernon Free Press says: We recently had our attention called to the old horse "Jackson," formerly the property of Gov. Casey, of this place, but now in possession of his son, S. K. Casey, upon the old homestead. After a searching investigation into the facts in the case, we became fully satisfied that he was at least forty years old last spring, and the facts would indicate that he might with propriety be called several years older. He is a small, dark bay horse. One of his eyes had a part of the upper lid torn off many years since, which causes it to run water almost constantly. His other eye is good. His legs are small, elegantly formed, and without a blemish of any sort. His teeth appear to be sound. He eats heartily of corn, oats, hay, &c. He was never known to be sick; is spry and active as most horses at the age of twenty. He has been working upon the farm as occasion required until this year, when it was thought he was entitled to his time and feed, and was honorably retired the remainder of his stay on earth.

HORSES IN CALIFORNIA.—Most of the horses in California are still of Mexican stock, and are admirably adapted to wild pasture and the saddle. They are healthy and hardy; they keep fat on scanty feed; they can travel long distances, even a hundred miles in a day, without injury, and after having been broken, they are docile and kind. For general service in the southern part of the State, they are decidedly superior to American or English horses. They are usually allowed to run wild until they are four years old, and they are then lassoed and broken. On some of the ranches, the old custom of keeping the mares exclusively for breeding is observed, and none save the geldings are used for the saddle or harness. The Mexican horse is better than any other for the herdsmen or vaquero, but is not swift enough for racing, and is not large enough for teaming.

FARM OVERSEERS WANTED.—The Farmers' Home Journal, of Lexington, Ky., in calling attention to the fact that accomplished farm overseers are in demand throughout the south, says: In the days of slavery there were overseers on nearly every farm, men employed to superintend the negroes and manage the place, with or without the cooperation of the owner. There are no slaves to watch, but there are still farms to manage, and an increasing demand exists for men of sobriety, morality, industry, sound judgment and knowledge of farming. Many persons who own large farms are without the skill and experience required to conduct all of these departments, and there are others who prefer to entrust the management to competent men. These positions are honorable, requiring the possession of certain qualities, and they are generally remunerative in proportion to the capacity and industry of those who fill them.

CUTTING HERDGRASS IN BLOSSOM.—At a recent discussion of "Our Hay Crop," by the Keene, N. H., Farmer's Club, most of the speakers favored early cutting, and two days drying. The plan of plowing in August manuring and seeding at once with herdgrass, and sowing clover in the spring, was practiced by several. Mr. Williams used twelve quarts of herdgrass and five pounds of clover seed; Mr. Twitchell sixteen quarts herdgrass, half bushel redtop, and six pounds of clover. Mr. M. B. Foster said: "I would cut herdgrass before it was in blossom or let it stand till the seed is partially matured. I would never cut it while in blossom on account of the injurious effects of the dust that will be in the hay."

REMARKABLE LONGEVITY IN A SHEEP.—It is not often that any of the domesticated animals kept for the support of man are allowed to come to the natural termination of their life. It is all the more interesting, therefore, when one has been allowed to do so, to make a note of it as a contribution to natural history. In the year 1847 a speckled ewe was brought from Shetland and given to Mr. Buist, of Ormiston, who, unwilling to kill what he received as a gift, has kept it ever since. This ewe was five years old when it was brought; it was therefore twenty-eight years old when it died. It may safely be said, without the risk of contradiction, that it was the oldest sheep in the British Islands.

HEMP CROP.—A Kentucky paper says: Our farmers are now generally engaged in preparing their hemp for market. We are gratified to learn that it is turning out well, and is of fine quality. Where the hemp can be delivered at once, \$8 per hundred is readily given, but \$7.50 may be taken as the rate when the delivery is delayed.

HOG CHOLERA.—The Marion County Democrat says: This disease is raging fearfully among the swine in the southwestern portion of this country. Mr. J. L. England, residing near Gosport, informs us that out of 58 head of hogs which he had a short time since, but 6 head are now living, the remainder having died of cholera. Jonathan Jones, in the same neighborhood, had 60 head and now has but a very few, and they are all diseased. Every remedy known has been tried, but without avail.

AGRICULTURAL PATENTS.—During the year 1869, nineteen hundred patents upon agricultural subjects were issued from the United States Patent Office. The more prominent matters were classed as follows: Plows and attachments to plows, 255; harvesters and attachments, 195; planters, 150; cultivators, 150; churns, 160; rakes, 90; seeding and sowing machines, 80; harrows and pulverizers, 80; bee-hives, 62; separators and smut machines, 50.

SIRUP FROM THE SWEET POTATO.—It is reported that Mr. Charles Delamore, of New Orleans, has discovered a process by which he converts the juice of sweet potatoes into a beautiful golden sirup. From fifty-two pounds of potatoes, with rude machinery, he has lately made two and three quarter gallons of the sirup. He thinks he can make it at a price less than cane sirup.

RECONSTRUCTING POTATOES.—In Paris they manufacture "new potatoes" out of old ones by the following process: The potatoes are put into tubs half filled with water, and are vigorously stirred about by the feet of workmen until the dark skin has been rubbed off, and they acquire a smooth and satin-like appearance. They are then dried, neatly wrapped in paper, and arranged in small baskets, which are sold in the markets for five francs each.

KENTUCKY STOCK.—The shipments of stock from the Paris, Ky., stock pens for the year ending December 31st, 1870, aggregate 2,932 car loads, as follows: Cattle, 2,020 car loads; hogs, 660 do.; sheep, 148 do.; mules, 56 do.; horses, 6 do. This is an increase over the shipments for the year 1869 of nearly one thousand car loads.



THE CHEESE CROP OF 1870.

It is not necessary to go back many years to reach the time when the only disturbing element in the annual production of cheese in the United States worthy of consideration was the variation of seasons. A good or bad season for grass was the main thing that effected the quantity, and raised and lowered the price of cheese. The export demand which sprang up just before the factory system came into vogue, had not then assumed a sufficient importance to produce much effect upon the market. Now new items must be taken into the account in estimating a cheese crop and the influences that are brought to bear in disposing of it. The introduction of cheese factories has made a great change by diverting milk from the manufacture of butter to the manufacture of cheese. Formerly, changes from

butter-making to cheese-making were infrequent, or at least gradual. Now they are annually occurring on a large scale. In ten years the number of factories has increased from a single factory to 2,000. At first they were built only in cheese-producing districts, and were supplied with the milk of cows that had formerly been devoted to cheese-making, and hence did not affect the total amount of cheese produced. But soon the limits of the old cheese districts were exceeded, and then the milk formerly appropriated to butter-making began to be used for cheese. These changes have increased from year to year, till at the close of 1869, the milk of about 400,000 cows in the United States has been turned from the manufacture of butter to that of cheese, just about one-half of the factories (1,000, averaging 400 cows each) being located in districts where butter had formerly been made. These great changes in the use of milk have had their influence in the relative aggregates of butter and cheese produced. Reckoning 135 pounds as the annual yield of butter per cow, the aggregate of butter at that time was diminished 54,000,000 of pounds; and reckoning 300 pounds as the yield per cow of cheese, the total product of cheese was increased 120,000,000 pounds by factories erected outside of the old cheese-producing districts.

From 1850 to 1865, little change occurred in the quantity of cheese produced. It was about the latter date when cheese factories began to reach out into territory where cheese had not been made before, and a large share of factories erected since that date have been located where cheese was comparatively a new product. Up to the present year the increase of factories has been quite uniform, multiplying almost in a regular geometrical series with two for the ratio. Last spring an unusual number went into operation, the best informed persons estimating the number at 1,000. Thus in the spring the country was prepared for the production of an enormous crop, one that would be far in excess of anything ever produced before, if the season and all other circumstances had proved favorable. But few factories were last spring built in the old cheese districts. It is fair to count three-fourths of them in territory where cheese had not been made before. If we reckon that these contain 400 cows each (the usual average number), we shall find that 300,000 cows have been turned from butter to cheese in one year, making an addition of 90,000,000 to last year's yield of 240,000,000, and a total this year of 330,000,000.

But this large addition to the crop of last year has not been made. In the first place, so far as I can learn, milk has been about five per cent. poorer in quality in most of the principal cheese districts this year than usual. It has required nearly half a pound more milk this year than last to make a pound of cheese. Though in some localities it has been about as good as usual, the depreciation has been quite general through the country. This difference in the value of milk will make, on a basis of 330,000,000, an abatement of some 15,000,000 or 16,000,000.

In localities where cheese only has been made for a series of years, cheese only will be made through the entire season. There is no change with dairymen in such sections; though butter runs up and cheese runs down, they will make cheese as long as milk flows. They only make butter when cheese cannot be made every day, or when the milk is very rich. But this rule does not prevail where dairymen have formerly been in the habit of making butter. These new cheese-makers are not unwilling to return to their old occupation. Indeed they watch, with an eye as keen as that which Wall St. watches for a change in finance, the relative prices of butter and cheese, present and prospective, and change from one to the other readily as occasion may dictate. In the latter part of the summer and early part of the fall the price of butter, compared with that of cheese, was relatively high, and most of the factories in the new districts closed early, some of them as early as the first of September and others during the month, and many more in October, and almost all of that class of factories closed early, cutting off more or less of the cheese-product at the last, end of the season. No one can tell just how much the crop has been diminished in this way—perhaps one-tenth, or say 25,000,000. Then the drought in different parts of the country, by reducing the quantity of milk, has probably cut off as much more, notwithstanding the fall has been unusually favorable for grass, the butter product having absorbed the lion's share of the fall feed.

These deductions, though they may at first seem large, will not be deemed extravagant, especially when it is remembered that the new factories which have been reckoned as receiving the milk of nearly as many cows as the old ones average usually, fall a good way below their anticipations the first year or two. They reduce the season's product to 265,000,000, only 25,000,000 more than last year. There is another abatement still that is worthy to be considered. A good many (I do not know just how many) of the new factories are creameries, making both butter and cheese, and a considerable number of factories that made only cheese last year are making butter and cheese this. In these factories it requires not less than 25 per cent. more milk to make a pound of cheese than it does where cheese only is made, and hence a deduction of some millions more must be made, whence it will appear that the crop does not much exceed that of last year. Bearing in mind that the increase of consumption in the United States is fully 20,000,000 annually, it is evident that we shall have no surplus left over for another year, if, indeed, we have enough for ourselves and the increased foreign demand occasioned by the severe drought in England and other parts of Europe. Though these figures are only estimates they will serve to attract the attention of dairymen to the causes that have been oper-

ating to vary the cheese crop of the season, that they may the better judge for themselves what that crop is, and how it may best be disposed of.—L. B. ARNOLD, in N. Y. Tribune.



KEEPING A THOUSAND HENS.

With a flock of a thousand fowls at least six acres are requisite. Some have given this rule, an acre to each hundred. This area should be fenced in with boards or pickets, and houses erected, large enough to accommodate one hundred fowls for roosting, shelter from storms, and laying. It is not essential that these houses should be expensive, but they should face the south, and the fronts should be partially or entirely glazed. The glazing should be by sashes, which may be left opened easily by hinges above, and may be left open through the summer, to permit a free circulation of air. The care of these houses should be entrusted to a capable person, as on their proper management, the success of the poultry largely depends. In addition to the poultry house there should be provided numbers of low sheds, beneath which the fowls may take shelter from the heat of the sun or from storms.

Care should be taken to prevent the ingress of vermin, skunks, weazels, &c., to the ground, and one or more good dogs should be confined within the enclosure, care being taken to secure dogs which will not trouble the fowls, but which are good watch-dogs, and vigilant. An abundance of pure water is also absolutely necessary, and unless a brook runs through or a pond is located on the land, water should be brought by a ram or pumped by a wind-mill from a well. Fowls drink a great quantity of water, and it should be of as pure quality as can be obtained. The preparation of the grounds and building of the houses and sheds having been completed, the stock may be procured.

For all practical purposes the common dung-hill fowl is as good as any, as we have proved completely to our satisfaction. In selecting a stock take hens from one to two years old, bright-eyed, red-combed, clean-legged fowls, as large and well formed as can be obtained. There is no need of a crower with the large flocks, the breeders being selected and kept separate from the others; for laying purposes, hens do better away from a cock than with one, and if a number of male birds are together, the fights and troubles will be incessant. The care of the poultry is not great after they are placed in the park. The fowls selected for breeding purposes should be kept in flocks of twenty, in yards separate from the others, and each flock should have a male bird. These birds should be the very best to be obtained, strong, well formed and hardy, and the cock should be two years old, healthy, strong and courageous. We believe that a Brahma cock, such as we have described, crossed with the dung-hill fowls, would get better and more marketable chickens than would any other breed. This, however, is for the poultryer to decide.—Massachusetts Ploughman.

THE CHICKEN CHOLERA—CAUSES—REMEDY.

A writer in the Country Gentleman, speaking of Cochins, says: They are much troubled with what is termed cholera—inflammation of the mucous membrane—caused by damp, sudden cold, and eating too much green stuff; as a cure, I have used with great success alum in water, shutting them up and not allowing them to drink anything else, at the same time feeding them with bread soaked in milk with pulverized red pepper and charcoal mixed in it—either one would probably cure the disease, but think it best to make sure of it; with this treatment in two days they mostly will recover.

This disease is also brought on by the fowls eating trash, such as rotten flesh, a certain brown cut-worm, and other larvae. I have in such cases squeezed them out of the throat, holding the fowls' head downwards—administering the same feed as above.



ANSWERS TO CORRESPONDENTS.

WARTS ON CATTLE.—H. A. C. Estherville, Iowa.—What will remove them?

Answer.—Most persons at all familiar with stock are well acquainted with the appearance of these excrescences, which vary in size from a pin's head to that of a large apple, and are found in all parts of the body. The most common situation is about the eyes and mouth, on the belly, organs of generation in the male, and the udder in the female. Warts are purely a skin disease, and have nothing to do with the blood, as generally supposed, so that any constitutional remedy is useless. They are best removed with a knife. Not cutting them off close to the skin, in which case they are sure to grow again, but carefully dissecting them out, so that no portion of their substance is left to form a nucleus for fresh excrescences. Should an external application be preferred, (and almost every cow-leach and farrier has his all-wonderful specific) a little white arsenic rubbed on the raw surface of the wart will have the effect of causing its whole substance to slough out. Occasionally, however, very ugly ulcers are caused by the treatment. Corrosive sublimate is a much more manageable remedy, and one which is often effectual; it should be applied in the form of a

fine powder, as in the former instance, rubbed on the raw surface.

QUINCY (MALIGNANT SORE THROAT) IN HOGS.—C. J. H., Macon, Mo., and D. T., Morris, Ill. Our young hogs are seriously troubled with some throat or head disease. They breathe hard; cough and sneeze a great deal, and seem to be swollen and choked up in the throat. They were in fine order, but are falling away, and some of them have died. Have given them sulphur, copperas, gun-powder, celebrated condition powders, and tried all the remedies suggested by expert and wise hog-ists hereabout, but to no use. At last we call on you to do the rest. Please give us some information about the nature of this disease, and advise us how to treat it.

Answer.—Fat hogs seem to be more subject to this disease than others; it occurs chiefly in damp or hot, imperfectly ventilated and unclean styes. This frequent and fatal complaint begins with swelling of the glands under the throat; in proportion to the extent of this swelling, so the breathing is rendered more difficult and heaving, and swallowing more painful and obstructed; the pulse is quickened, and a high degree of fever results; there is dullness, stiff gait, gasping for breath, cough, heat of expired air; great heat of back; swelling of the tongue; the eyes are red; the appetite gone; the teeth are grated; the weakness increases; frequent moans are expressed; and, unless relieved, the swelling of the throat increases and prevents the possibility of breathing, so that the animal eventually dies. The disease may terminate fatally in from two to six days.

Treatment should be prompt and energetic to be successful. An active emetic should be given, such as the following:—Potassio-tartrate of antimony, four grains; Ipecacuanha, six grains; white hellebore, six grains; mix, and throw into the mouth. If the animal will drink anything, or eat a little, a purgative powder, consisting of two or three drachms of castor oil seeds, should be given. When the difficulty of breathing is great, the operation of tracheotomy must be performed, an active blister applied over the throat, and injections given frequently. If the animal can swallow, and will drink water, some hydrochlorate of ammonia and nitre should be dissolved in it. It has been recommended to fire with hot iron on either side of the neck, or (perhaps better) apply rugs, wrung out of boiling water. As healthy hogs may become affected by associating with diseased ones, they should be separated from each other.

INDURATED SWELLING OF THE HOCK-JOINT.—R. E. A., Tama City, Tama Co., Iowa.—Statement: I have a horse, six years old, with an enlarged hock, caused by strain eight months ago. He is lame and valueless in his present condition. Can he be cured?

Answer: In all cases of indurated swellings, great benefit is derived from the use of ointment of biniodide of mercury—one part of the biniodide of mercury to eight parts of hogs lard, well mixed together. This ointment is to be well rubbed into the parts to be cured, after shortening the hair; swelling will follow the action, but will subside in a few days, if one application be enough, which will be known if the enlargement has disappeared. If not, apply in from five to six days again, scarcely rubbing so hard as at the first application, as the skin is more easily acted upon at this time. But whether one, two or half a dozen applications be necessary, let sufficient time elapse before each succeeding application, so as not to prevent the hair growing, and thereby blemish the part. Apply lard once a day between each application, and occasionally wash the parts with water, not too warm, and lard the part when dry. The horses head should be tied up, so that he cannot get at the parts with his mouth. A few hours will be long enough. Place plenty of bedding under the feet, so that, by stamping, the horse will not break or hurt his feet—the shoes being removed while the horse is under treatment.

ACCUMULATION OF PUS IN THE GUTTERAL POUCHES.—A. K., Chatsworth, Ill.—Statement:—I have a young horse that was taken with the distemper last spring, and has not done a day's work since. All the difficulty appears to be in his throat. He does not run any at the nose; when he eats, he coughs, and throws the feed out of his nose; when he drinks the water runs out of both nostrils. He is always ready for his feed, and eats well, both grain and rough feed. What ails him, and can he be cured?

Answer.—Accumulation of pus in the guttural pouches, is the result of strangles or severe catarrh. As no discharge occurs, there may be disease in both pouches; the Eustachian orifices are plugged, and nothing can escape. A horse with much accumulation of pus in the guttural pouches, sometimes roars, and has a thick gummy neck. He does not thrive well, although he eats all he can get. In a case as this, of about a year's standing, no medicine will help, and no treatment short of an operation will cure the horse. But the operation is attended with danger of cutting the carotid artery and vein, and should only be entrusted to a skillful, practical veterinarian.

CRIB-BITING.—J. McB., Piper City, Ill.; T. A. E., Scott Co., Ill.; W. T., McLean Co., Ill.—Crib-biting is rather a vice than a disease; the horse grasps the manger, and holding it with his teeth, sucks in the air; or at least appears to do so. The effect of this bad habit is often, but not always, to impair the digestive powers, and render the animal poor. It is a mere accident, arising from bad management of the horse; and it is no more connected with unsoundness than starting or shying. A crib-biter will not retain his condition; and a horse that will not retain his condition is never fit for constant work. It is not improbable that the habit may affect the secretion of the glands from which the saliva proceeds, and thereby impede digestion. Place his manger so low that he cannot reach it without stooping, and remove all projecting objects from the

range of his halter strap. There is no certain cure for this habit. A strap around the neck, as commonly used, will in the long run prove injurious to his wind-pipe.

LICE ON CALVES.—H. T., Round Grove, Whiteside County, Illinois. Treatment: My young cattle are suffering from lice. Please advise me how I can best destroy them without injuring the cattle.

Answer.—We have often recommended the following remedy, as being both safe and destructive to lice: Stavesacre seeds, four ounces; white hellebore, one ounce; boiled in a gallon of water until only two quarts remain. Apply with a brush to those places where the lice are seen. A decoction of tobacco may also be tried. On no account should mercurial or arsenical preparation be employed, as from the great extent of surface it is often necessary to apply the dressing to, death has frequently resulted.

WIND-SUCKING.—C. T., Bloomington.—Wind-sucking consists in swallowing air without applying the teeth to any fixture. The horse makes a grabbing motion of the head, with mouth partly open. This habit does not seem to be so often injurious as crib-biting. It is often an effect of indigestion. As it is of recent origin, we would treat the horse as for indigestion. Place a piece of rock-salt and chalk in the manger, and give a little pipe-clay, magnesia, or other antacid, in his water. Half an ounce each of ginger and gentian, powdered, should be given twice a day, for about a week, to impart tone to the digestive organs.

CARBUNCULAR QUINCY.—J. B., Livingston Co., Ill.—As an answer through the paper would come to you, rather too late to be of service, we have dispatched an answer by letter to Dwight, Ill.

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