

HINTS THAT WILL HELP THE PROGRESSIVE FARMER TO CONDUCT HIS FARM SUCCESSFULLY.

THE FARM SEPARATOR.

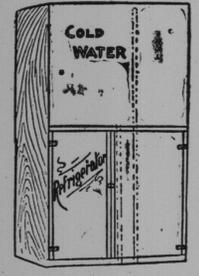
Valuable Adjunct to the Small Dairy Equipment. Addressing the Kansas state board of agriculture at its annual meeting, G. B. Morgan said: The value of the farm separator to the private dairyman has already passed the experimental stage. The evidence of our experimental stations and the testimony of all who have made a careful, intelligent comparison between the gravity system and the modern cream separator are practically a unit in favor of the latter for the private dairyman. The question as to its advantages in localities where creameries are established is one upon which there is much difference of opinion. In the most serious problem confronting creameries at this time is that of operating expenses. This applies alike both to creamery and patron, and whether under co-operative or proprietary management, it makes but little difference. All are vitally interested in the expense account. If the eastern creamery enjoys a patronage of from 10,000 to 30,000 pounds of milk per day, while many of our creameries are running along at from 3,000 to 5,000 pounds, then we have lost much of the advantage we possess on account of our cheaper dairy foods in the increased cost of operating. Evidently as long as a great condition exist some system of centralization is inevitable. The farm separator, we think, will assist greatly in solving this problem. It means a minimum of labor with a maximum of profit. The product is carried in condensed form from the patron to the creamery. We feel safe in saying that fully one-third of the skimming stations in this state from October to May do not pay running expenses. It is in these localities where the farm separator will prove of the greatest benefit. At points where the patronage is liberal any radical change would not be advisable. It will to a great extent work its own way. But at these weaker, nonpaying stations much good can be accomplished by the use of the farm separator, especially in territory where the distance is too great to haul milk. True, to carry out this plan the farmer must make an investment for which he is amply compensated in the increased value of the skim milk and the convenience of having it fed while warm, sweet and fresh and in the best possible condition to be given to the young animal. The milk patron often suffers a severe loss when he hauls Sunday's milk during the heated term. He also loses again by feeding new milk to the calf for six or eight weeks on account of the danger incurred in feeding the creamery milk. When milk is fed from the farm separator by careful management and the use of Kaffir corn meal the calf can be put upon skimmed milk at 15 days old. It has been our experience that the patron who in one year to pay for a \$100 machine.

THE COW IN IOWA.

Status of the Dairy Industry—Price of Butter—Use of Separators. The report of Dairy and Food Commissioner Norton of Iowa contains a number of statistics of fact which are of general interest. The total number of cows in Iowa is 1,295,980, or an average of 23 to the square mile in the less populous portions of the state to 55 in the more populous. The value of these cows is \$28,338,433 or nearly \$30 per cow. The number of cowboys each 1,000 population is 576. The average price of butter has decreased over seven years ago, but has increased over last year. The average price in 1893 was 27 cents; in 1894, 24 cents; in 1895, 21 cents; in 1896, 20 cents, and in 1900, 22 cents. During the year ending July 1, 1900, there were but three licenses issued for the sale of oleomargarine in the state. All of these have since expired, and no renewals have been taken out. Of the 936 creameries in the state 842 are operated on the separator plan and 50 on a combination of the two plans. Five hundred and one creameries are owned by individuals, 340 are operated on the co-operative plan, 116 on the stock company plan and 160 on the private plan. There has been a notable increase in the past year of the number of farm separators in use in the state, in 1900 there being 3,332 as against 1,762 of the previous year and 934 of 1898. The Silo Question. A roof on a silo is perhaps more a question of convenience than of necessity, says Hoard's Dairyman. Silage will keep without a roof being over it, unless, of course, in feeding the silage, keeping snow, etc. out and whether while handling a roof is usually built on the silo. If one has not been built, the silo can be covered with a netting or filling. If there is plenty of silage and the pasture is not of the best, keep cows on silage till the growth improves, or if they are turned out give them a feed at night. There is no harm in keeping up the milk flow without assistance of a little dry feed. If the silo is not completely emptied, when ready to fill remove all spoiled ensilage from the surface and fill with the new cut corn at once. Regularity in Stable Work. Reasonable regularity in stable work is always desirable, but in case of milking it is a necessity when one expects to do their best. The variation of an hour, early or late, will make appreciable differences in the quantity of milk yielded and sometimes in the quality of milk as well. The benefits of regularity in stable work, once well established, will soon extend to other farm operations.

WATER REFRIGERATOR.

Its Designer Claims That for Ordinary Farm Purposes It Has Advantages Over Ice. For the last two years I have used a homemade water refrigerator in the farmhouse, which has some advantages over ice. It saves the expense of putting up ice; saves labor of getting it out and putting it into the refrigerator. It is purer than ice, and furnishes drinking water of guaranteed quality, which is better for the health than ice water. Scientists make a strong point against putting ice into a refrigerator and then breaking off a little to put into drinking water—this on the score of health. The water used comes from a drilled well, which is cased with water-tight and air-tight gas pipe from top to bottom so no insects or



REFRIGERATOR OUTLINE. seepage water can possibly get into it. It is a great thing to be blessed with this kind of well and pure, uncontaminated water is the first thing to secure on any farm. The windmill sends it first to the tank in the top of the refrigerator through the short pipe, indicated by dotted lines, the overflow runs back through the other pipe and goes to the stock water tank. The water is needed for stock, so none is wasted. It is also needed at the house, and fuses permit its being taken out at the house as desired. It is cool and pure and can be drawn out in pantry, diningroom or kitchen, or all, as desired. Shelves in the lower part hold the milk, butter, fruit and whatever else is desired to be kept cold, and the wife does not have to go down cellar after butter, nor to the well for water, nor the man of the house have to get ice for which he has no need. The tank I use is four feet high, and made of galvanized steel. A cupboard-like structure without shelves in the upper portion affords a good place to locate this tank, and the windmill will do the rest. The pipes run underground from the house to a trench six feet deep, so as to be free from frost. A stopcock at the pump allows the water to be sent to the house when desired, or direct to the stock tank without first passing through the house tank.—E. C. Bennett, in Orange Judd Farmer.

TEN VALUABLE HINTS.

If Carried Out by Patrons, Creamery Success Is Assured. Here is what the buttermaker at the Glenville (Minn.) creamery sent out to his patrons: The following suggestions are sent to all patrons for their mutual benefit. If we are to make the best grade of butter that will sell at the highest price we must have only pure, sweet milk, hence it is for your interest that we make a fancy article, and with your co-operation this can be accomplished. Trusting that every patron will unite with us in this effort, we beg to offer the following suggestions: First—Thoroughly brush the cow's flanks and udder before milking. Second—Strain carefully through wire and cloth strainers. Third—Don't allow cans to remain in the stable. Fourth—Don't mix night's and morning's milk before cooling. Fifth—Keep milk in cold water. Sixth—Launder the milk cans until the milk is cooled, then stir and close the covers. Seventh—Don't leave skim milk standing in cans. Eighth—Use brush and warm water for washing cans, then rinse with scalding water and stand in the sun. Ninth—Don't use wooden milk pails. Tenth—If you know of any patron that is violating the rules of common cleanliness in caring for his milk it is your duty to report the same at the creamery, and such information will be held in the strictest confidence. Trees Restore Fertility. Many of the worn-out farms of the east may be restored to fertility by growing forest trees upon them for a series of years, and many of them are better suited for the production of timber than for any other purpose. It is fortunately true that worn-out farm lands throughout the region once wooded will usually refer to their previous condition if protected from fire and stock. The process is naturally slow, and the result may be materially hastened and more valuable forest may be grown by the judicious planting of useful species. Wood Ashes as Fertilizer. Wood ashes give the best results on pasture land, orchards, small fruits and on clover. To purchase wood ashes is a risk, as it is difficult to procure two lots alike in composition, while the exposure to rains may cause loss of potash by leaching. If one has ashes it will make a better use of them, as they contain both lime and potash, but it will be found better and cheaper to purchase potash in the forms sold by fertilizer manufacturers than to buy ashes on the market.

SPRAYING APPLE TREES.

Some Causes of the Apparent Failures With This Remedy. A belief exists in the minds of some fruit growers that recommended methods for the destruction of the codling moth are worthless, that spraying with arsenic compounds has proved of no avail. Disregarding the opposition of some whose ill chosen statements furnish their own refutation, we must admit that trials of spraying methods by our fruit growers have too often resulted in apparent failure and in consequence have measurably destroyed confidence in these methods. These reported failures may have come from one of several causes—first, an exaggerated idea of the results to be obtained by spraying has led to anticipations of a degree of success not warranted by the experience of the most successful experimenters; second, close adherence to several indispensable points of practice that even careful men may fall through oversight of these particulars, or, finally, the adverse report is made without a just estimate of the result of the experiment, for it will be granted that a true judgment of the degree of success can only be had by the comparison of trees treated with trees untreated in the same surroundings, and, this comparison lacking, the estimate of success or failure is altogether a matter of opinion and not to be admitted as evidence. As to the first, no one qualified to advise in the matter will claim that a single season's trial of spraying against the codling moth can alone bring perfect success, especially where the neighboring fruit growers do not follow the same method and when these have not been practiced for several years together or long enough for the cumulative effects to become apparent. It must also be remembered that it is only the worms of the first brood that are killed by the spraying, however effectively done, while from the individuals escaping this attack come the moths that are parents of the second brood that spoils the apples at maturity. Moreover, spraying alone, though successful within its own limits, cannot insure the fullest product of perfect apples without the concurrent practice of other methods looking to the final reduction of the numbers of the trees and the destruction of the rest of the worms every ten days from the fall of the first wormy apple till the fruit is all in the bin. The second is the immediate destruction of all fallen wormy fruit, and the third is the destruction of many as possible of the worms wintering over under bark scales, in old birds' nests, in cracks in apple bins or barrels or elsewhere in the fruitroom. The fourth is to inspect the fruit and to be expected to show their full results in the season in which the work is done, though the immediate value of the first is considerable as a means of reducing the number of worms of the second or later broods of the same season. It is also advisable that some of the reported failures are referable to the use of adulterated or low grade poison. In several states the experiment stations find greatly inferior samples of paris green on the market, and while tests made at the Kansas experimental station a few years ago showed a fairly uniform high grade in samples analyzed, it is quite possible that those at present in our market may be found defective as has been reported from neighboring states. We advise strongly that every fruit grower continue his efforts to destroy the apple pest by all possible means. Especially should he continue spraying and with careful attention to the condition needed to succeed. It is only by perseverance in a united effort on the part of orchardists that the apple crop may be brought to its condition of highest profit.—E. A. Poppeno.

Hessian Fly. Hessian flies will not attack grass or oats, but a simple harrowing or disking of the fields will rarely destroy but very few of them, and the rest will develop and go to other fields. Where the wheat has been killed out, the young seedling uninjured it may look like an unprofitable piece of work to plow under such a field, and in most cases the farmer must decide which is the best course to pursue, but he must bear in mind that these flies will develop and go elsewhere to lay their eggs or grubs that may be growing in the same field. Then, again, it must be remembered that the wheat has yet to stand a second attack of the fly between this and harvest. There are probably many fields that look this spring as though they might produce a part of a crop, but by the time they have withstood the coming attack of the fly the prospects will be vastly diminished.—Ohio Station.

Foos of Currants. The currant worm is ever present, but happily is comparatively easy to handle. Arsenites applied when first leaves are expanding and followed with white hellebore are accepted remedies. Diseases or blights are treated with ammoniacal copper carbonate solution followed, after fruit is picked, with Bordeaux mixture. A general opinion seems to be that one variety of the currant is about as susceptible to attack of insects or disease as another.

An Objection to Kaffir Corn. Like all sorghums, Kaffir corn makes a weak, slow, early growth, which is in strong contrast to its vigor and hardiness in the field. It is not so well adapted to wet seasons and on weedy land the weeds in the early season will often make a strong growth while the Kaffir corn is too small to cultivate easily. This makes cultivation expensive and difficult.



The first requisite for a creamery is plenty of good milk or cream to be had within a reasonable distance of the creamery. The use of the separator on the farm or at separating stations in milk producing districts has enabled them to be run so as to draw their supplies from a much wider circle than they did when the milk was all taken to the creamery, says American Cultivator. The dairymen receive good prices for their cream, and their separator milk is also an important item to them, as in feeding calves and swine cows and better cows, to grow more milk, and to make more cream. The milk is sent to the small creameries. To produce good milk there must be good pastures in the summer and good fodder in the winter, with grain enough to make a well balanced ration. But all this should be where milk is supplied to a city market, and if better prices are realized for the cream sent to the creamery there will be more attention to green crops for summer and fall feeding when pastures are short, to build silos and to put in ensilage for winter fodder, to buy and feed more grain and to keep more cows and better cows, to grow more calves, to make more and a richer manure and thus to grow better crops. An unending supply of water and ice are needed on the farm and at the dairy, and the water must be pure. Cows of good butter making breeds should be kept by the producers and not such as are better adapted to produce large quantities of milk. Quality is more important to the creamery than quantity. Luckily such cows, grades of Jersey and Guernsey, can be bought at reasonable rates now, and farmers have been very generally educated up to a knowledge of the type of cows needed for the butter dairy. Most of them have also learned that good food and enough of it is necessary to produce rich milk. Luckily there are not many dairy or milk farms which are not near enough to the railroads to allow of transportation of the cream to a factory located at some central point.

Guernsey Bull in Harness. A thoroughbred bull full of vitality, well fed and with no means of working of his superabundant vitality is about as dangerous a combination as can be found on the farm, says Hoard's Dairyman. The farmer has the best intentions of handling the bull so that he will be in no danger, but as familiarity always breeds contempt of danger it is soon assumed that the bull is perfectly safe. Many men have assumed this once too often, with death or serious injury as the result. Much of this danger could be obviated if the animal had systematic exercise either in a tread power or harness, as shown in the accompanying picture.

Give your product a definite name by which it may become advertised and known, says The American Agriculturist. Make the one pound piece of butter into two half pound packages, use a usual, wrap in oil paper and then in heavier white paper on which is printed in gold letters in script type "Gilt Edged Butter," followed by the maker's name. On the opposite side place the same with any further remarks that will be explanatory and convincing to the purchaser who seeks a fine grade of butter and is willing to pay a fair price for it as against a low price for inferior or average. Appearances may be deceitful, but one thing is certain—good appearance gives the possessor of it a chance in the world, and that is all merit asks. There is always room for the fine, uniform butter, and if it is named and placed on the market right the demand will grow and become permanent. It pays to make good butter, but whether or not the full value is received depends to a certain extent on how it is put up. The taste of a discriminating public has to be considered in more senses than one.

Cod Liver Oil For Calves. Many dairymen who grow calves are accustomed to use a little oil meal as an addition to the skim milk to replace the butter fat taken out in skimming or separating milk, but in New Zealand they supply the fat by using cod liver oil. They give each calf about two ounces a day from the time they begin using skim milk for longer 80 days, when they think the calf no longer needs milk, and they stop it. The crude oil costs them 75 cents a gallon, and there are 100 ounces in a gallon, so that it adds about a cent a day to the cost of raising the calf. We think it costs but about 40 to 50 cents a gallon here.

Ensilage a Cow Food. Ensilage is readily eaten by all animals, but is pre-eminently a cow food. By its succulence and palatability it promotes milk flow, and when a grain ration goes along with it which tends to balance the ration it is an exceedingly cheap food. Wheat bran or shorts makes an admirable grain ration for growing animals, but on silage, and an addition of a small quantity of gluten or cottonseed meal makes an ideal ration for milk production.

HOW DAIRYING PAYS.

First and foremost, dairying pays in the superior education and training it brings to the mind of the farmer, says Hoard's Dairyman. No other class of farmers meet so often in convention or have as much literature devoted to their interests and progress. Second, it pays in its splendid promotion of the fertility of the farm. Here is the bank we draw on in every emergency. So many farmers in many sections are living with starved minds and a starved stock. Go into any dairy section and note the different appearance of the farm buildings, the better crops and the appearance of intelligence among the farmers. All these results are the natural effect of the business. Third, it pays in its forced training of farmers in a study of cattle. The man who has a dairy of 20 to 40 cows can see before a great while the constant necessity for the exercise of a thorough, sound judgment concerning dairy cattle. He will have to acquire this judgment if he makes any profit with cows, and in acquiring it he will become a broader man every day. Fourth, it pays in a larger and steadier yearly cash revenue than is achieved by almost any other branch of farming. It keeps the man on the farm, holds him down and makes him attend to his business and consequently makes a business man of him. Let any man embark in dairying and follow out the leadings of the business, and we will see that man grow in wealth and intellect, his farm increasing in fertility. There will be a growth of nice farm buildings, and, last but not least, the value of farms in the market is always greatest in well developed dairy districts. Every farmer ought to understand that there is the greatest vitality in the dairy business. For 30 years men have been professing that it would overtake and bring ruin on those who embarked in it. Evidently it pays all around, for the most prosperous farmers in the United States and Canada are the dairy farmers.

Making Dells Work. A thoroughbred bull full of vitality, well fed and with no means of working of his superabundant vitality is about as dangerous a combination as can be found on the farm, says Hoard's Dairyman. The farmer has the best intentions of handling the bull so that he will be in no danger, but as familiarity always breeds contempt of danger it is soon assumed that the bull is perfectly safe. Many men have assumed this once too often, with death or serious injury as the result. Much of this danger could be obviated if the animal had systematic exercise either in a tread power or harness, as shown in the accompanying picture.

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A QUESTION OF QUALITY.

Does It Pay to Raise Dairy Cows to Sell? The question as to whether it pays to raise dairy cows to sell is often raised and discussed, says L. W. Lighty in National Stockman, but much depends on the stock a man raises and the sale he has for his byproducts. Were I to sell my skim milk I could get only 8 cents per 100 pounds. I can make considerable lowland hay that is a little rough and coarse and has practically no market value, as it is not salable, but young stock thrives on it. Looking over my accounts, I find the cost about as follows the first year: Value of calf when dropped..... \$4.50 50 cwt. skim milk at 8c..... 4.00 100 lbs. butter at 20c..... 2.00 Total..... \$10.50

When about a year old, the heifer is served, and for the next nine months it costs just about half as much as it costs me to feed a cow one year, or \$15. Thus it costs me \$28 to produce a heifer with a calf at its side. I doubt if they can be raised much cheaper in this part of the country. If sold at this time, there would be very little or no profit, indeed, but if we have the right class of stock the heifer from now on will pay its way and some profit besides. My heifers frequently produce 300 pounds or more butter the first year. I have them well bred to start with. I feed and train them into good dairy cows, and when 4 or 5 years old I find no trouble to sell them at from \$45 to \$65. Ordinary scrubs at from \$25 to \$35 would bring us no profit, but rather loss, but dairy cows in the true sense of the term are always ready sale at good prices. Having done this kind of work for some years, my cows have won for themselves a reputation, and very frequently I have customers who keep but one or two cows for family use and are willing to pay for guaranteed stock. I keep a careful record of all my cows, and my monthly milk sheets show just how much milk each cow gave. I have a Babcock tester, and if the customer wishes it I make a test right before his eyes. The very best I always keep for my own use and to breed from. This makes me a profitable market for some unmarketable hay and gives me a profitable outlet for my skim milk. Under certain conditions it is more profitable to buy than to raise, but that makes a market for those who are favorably situated to raise them. The conclusion is that it pays to raise good stock under certain conditions. Poor scrub stock never pays.

The latest development in the dairy industry and one that has attracted the most attention probably is dairy bacteriology, says D. W. Willson of Illinois in The American Agriculturist. It is only a few years since the study of bacteriology has been sufficiently scientific to reach milk and its production. Today we find that the man who is up in his business is the dairyman who fully understands bacteria, where they come from, how they grow and how to determine the good from the bad. The man who has the best knowledge along that line is the man who is best fitted to carry on dairying scientifically and exactly and to guarantee that his product will be always uniform provided his milk or the raw product has been delivered to him in the proper shape. Marketing dairy products has been almost entirely revolutionized within the last 25 years. The methods of transportation have improved, and the methods of packing, packages and handling in every way have been so radically changed that the handler of butter of 25 years ago would hardly be able to understand or appreciate what has been accomplished unless he had grown up, as it were, with the improved methods. We must have the dairy type, conformation of the cow to the business for which she is designed. We look upon the cow now as simply a machine through which the products of the farm are passed and from which we receive the milk in its perfect condition. The cow that would produce 100 or 200 pounds of butter per year 50 years ago was considered a fairly good cow. The cow that does not produce 300 pounds of butter per year now is hardly considered up to date. This has been brought about by organization, by breeding and by studying the problem and finding out how the milking ability of the machine could be developed.

Homemade Koushis. Cow's milk should be diluted with one-third its volume of water and two teaspoonfuls of white sugar added per quart of liquid. A small portion of this is rubbed into a paste, which is then placed in strong bottles and allowed to ferment. After a few days, during which the bottles should be repeatedly shaken, a beverage of great value in cases of digestive disturbance as well as of excellent palatability for a healthy person is produced. Especial care must be used in corking the bottles tightly, and it is safer, owing to the great pressure produced by the fermentation, to wrap the bottles in a heavy cloth before shaking them.

Illinois Standard of Cream. In Illinois the law declares that cream must contain 12 per cent of butter fat. Most of the cream sent in by farmers contains about 25 per cent. This enables dealers to buy cream at 20 cents a gallon, add an equal quantity of milk or water to it and then supply it to buyers at 40 cents a gallon, says the Chicago News. Those dealers are not as sharp as contractors farther east, or they would reduce it one-half and then ask double the price they pay, at about 80 cents a quart.

LIBERAL FEEDING PAYS.

That generous feeding of dairy cows pays is clearly illustrated in our record for the five years ending December 30, 1897. During the years 1893, 1895, 1896 and 1897, cows bran as from they would take, while during the year 1894 they were fed light. Cost of 1 lb. Milk, Butter, Butter. 1893..... 4.107 364 10.8 cents 1894..... 4.999 271 20.8 cents 1895..... 4.438 352 8.0 cents 1896..... 7.454 349 6.3 cents 1897..... 6.902 322 8.4 cents

These are averages of the entire herd, and show that during the four years when receiving all they would eat up clean, they averaged 354 pounds of butter each, while the average yield for 1894, when on comparatively light feed, was only 271 pounds. The cost of production was the greatest in 1894. The kind of feed has little, if anything, to do with the yield, as long as they get the required nutrients in right proportion and in palatable form. We get as much out of fodder corn as we do out of ensilage, and as much from a pound of protein in butter as from a pound of protein in any other concentrate. They give just a trifle more milk when receiving some succulent food, such as roots and ensilage, but practically the same amount of butter or other milk solids. We select the cheapest foods and so mix them that the cow gets about one pound of digestible protein to six pounds of carbohydrates. If we should feed a much wider ration of carbohydrates that contained more carbohydrates and carbohydrate equivalent than the amount stated—she would gradually lay on fat, shrink in milk, and failure to breed would probably follow, but when the above-mentioned nutritive ration is maintained, such difficulties are encountered. Our records show that no changes in feed during the year are objectionable, as changes in feed cause shrinkage in milk. A uniform feed is maintained by following, but when the above-mentioned nutritive ration is maintained, such difficulties are encountered.

Restraining Hogish Pigs. Pigs being voracious animal hogs in every respect, it is, one who may be a pleasure to their master to their wants when small, the feeding of them having attained a certain stage, no ways so agreeable, is this true if the animals kept out of the troughs or are filled. Hence it is that the arrangement in the picture will be much better before a pig is fed. Before pouring in the swill end of the pen, in the swinging door suspended at the left King is indicated on the right. The trough filled and the door allow its former position, at the left King is indicated on the right. The trough filled and the door allow its former position, at the left King is indicated on the right. The trough filled and the door allow its former position, at the left King is indicated on the right.

Penfolds Around the Farm. Penfolds are not only ornamental, but excellent for the table, and are slow in reaching maturity, and the hen seldom lays before she is two years old. The chicks, however, grow very rapidly at first, and as they begin to grow almost at the start of life they require frequent feeding or they will perish. They soon begin to fly, and roost on the highest position in the pen. The hen lays from ten to sixteen eggs, according to age and treatment. The young chicks should be fed much cheaper than one farrowed meat, finely chopped, should be given three times a week after the first week. The male is a quarrelsome bird in the backyard, and often makes short work of some chickens. They are more ornamental than profitable, though the tail feathers may be pulled for sale as soon as the moulting season begins.—Mirror and Farmer.

Early Pigs. The early farrowed pig, February or March, should be out of the way in time to give his brother following him in April time to get a good start before winter comes on, says J. M. Jamison in National Stockman. The early pig can be fattened much cheaper than one farrowed later that has to be fed into winter to get ready for market. Another point in favor of the early pig, he can be put on the market before new corn hogs crowd the market and packers begin to break down the prices. Last year and the previous year were notable examples of having the spring pig ready for market in October, not later than the third week.

How to Re-establish a Pasture. Possibly the best plan is to imitate nature. Give up trying to crop the land and sow a half dozen or more varieties of grass seed in equal liberal amounts. Choose the kinds which have proved themselves best adapted to your soil and climate, which will probably include red top, Kentucky blue grass and alsike clover.