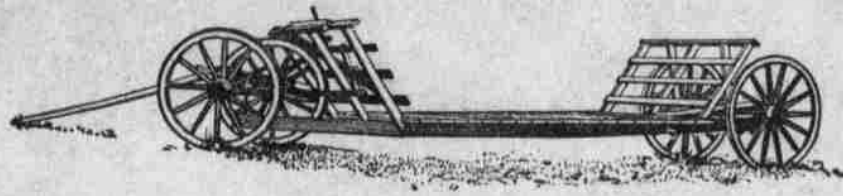


OVERPRODUCTION IN INTENSIVE FARMING



A Convenient Rack for Hauling Fodder.

(Prepared by the United States Department of Agriculture.)

In order to make the small farm profitable, it is, in most cases, necessary for the farmer to devote himself to some intensive type of agriculture such as truck farming, poultry, fruit growing, intensive dairying, etc. Before any of these can be successful, the market demand and transportation facilities must be adequate. When perishable products are grown far from their markets not only are the freight and commission charges apt to be prohibitive, but in the period between the shipping of the commodity and its sale on the market, prices which were attractive at time of shipment may have dropped with results disastrous to the grower.

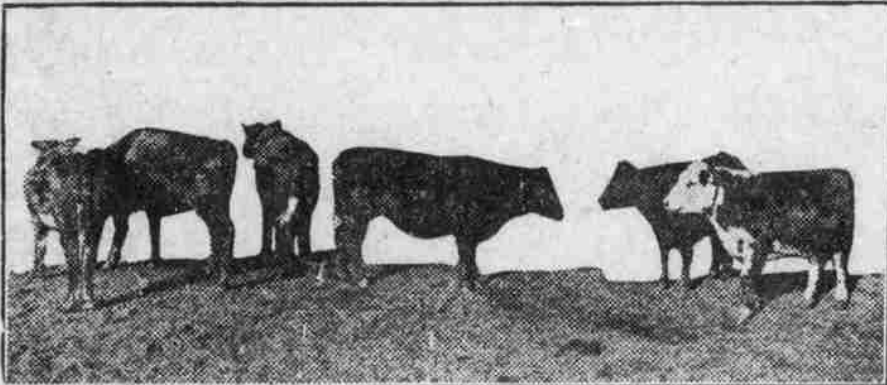
Intensive crops such as garden truck, fruit, etc., have a much wider range and more rapid fluctuation of prices than staples like wheat or corn. A comparatively small acreage is sufficient to supply the demand for the intensive crops. It is very easy therefore to increase this acreage to a point where the market is flooded and prices drop immediately. Taking the country as a whole, vegetables, including potatoes, occupy only two and one-half per cent of the crop area, and this acreage, under present conditions, furnishes about all that the market can absorb at a price that will be profitable to the grower.

If the farmer is ill-advised enough to undertake the production of garden truck at a time when the supply is greater than the available markets require, it is a comparatively easy matter for him to correct his mistake. In the case of fruit, however, it takes longer to produce a crop, and a similar mistake is therefore likely to be

done at any time until it is too late to permit the crop to mature before frost. The land should be plowed in the spring for surface planting and then allowed to lie rough until about seeding time when it should be smoothed with a drag harrow or disk. For furrow planting spring plowing is not necessary. A lister like those made for planting corn can be used on stubble or cotton land without previous preparation. If the farmer does not have a lister the furrow can be laid out with a plow and the seed planted with a one-horse drill after the manner of planting cotton or corn. Planting in furrows is recommended for western Texas or Oklahoma, and flat or ridge planting for all the region east of this where the rainfall is more abundant. When planted in rows 26 to 44 inches apart 4 to 6 pounds of seed to an acre are sufficient. Sorghum seed is usually cheap, but the farmer is urged to buy only standard varieties from a reliable dealer.

When planting in rows, thorough cultivation is as essential to the sorghums as to corn. This method produces larger yields and the crop is better prepared to withstand drought than if broadcast or drilled. Where the latter method is followed, however, the practice is the same as for oats or any other small-grain crop. Cowpeas or soy beans are also frequently mixed with sorghum to improve the quality of the hay. This is especially frequent on dairy farms. Three parts of cowpeas or soy beans to one of sorghum seed is the usual proportion. From 60 to 90 pounds of the seed mixture is required to the acre.

As pasture, sorghum is safe only after it has become fully matured;



A Good Bunch of Feeders.

more serious. The acreage devoted to fruit is even smaller—one and three-fourths per cent of the country's crop area—than that devoted to vegetables. Until there is increased consumption either in this or other countries accessible to our growers overproduction can easily occur.

Sorghums for Southern Live Stock. Every southern farmer who is producing beef or milk should grow the sweet sorghums. These are not recommended as money crops, but as a fodder they are practically equal in value to corn while as a rule better yields can be obtained. They should be consumed for the most part on the farm where they are grown or at least at points within hauling distance.

The sorghums are particularly useful as silage, which is essential to the live stock owner and particularly to the dairy farmer. The various southern states report yields of from 16 to 20 tons of sorghum silage per acre, which is an average of from 2 to 4 tons more than the yields of corn, while the relative value pound for pound of the two feeds has been found to be much the same by experiments conducted at the Kansas agricultural experiment station. In fact for beef cattle these tests showed that sweet sorghum silage was, if anything, superior to corn silage. The sorghums intended for silage, however, should not be harvested before they are fully matured. If cut when the seed is hard there will be no trouble from spoiling or from excessive acidity. From 20 to 30 pounds per day is considered a full feed, but this should always be supplemented with 12 to 15 pounds of dry roughage and some concentrate like corn or cottonseed meal. Cottonseed meal combines particularly well with sorghum silage, and since this meal is always abundant in the South, this is another reason for growing the sorghum.

For forage in the South the sweet sorghums will be found better than the grain sorghums, such as milo, kafir and feterita, which suffer from the attacks of the sorghum midge. Of the various varieties the Sumac, Orange, Amber, Gooseneck and Honey are probably to be preferred. The Amber and Orange are the earlier kinds and two cuttings can often be obtained from them. All of these varieties respond excellently to good soil, but they succeed on many different types; a rich, loose, well-drained clay loam soil is the best. A water-logged clay or extremely sandy soil will not afford profitable returns. Fertilizers strong in nitrate applied to poor soils will produce good results and the free use of barnyard manure is always advisable.

Sorghums may be planted as soon as the ground becomes warm in the spring, usually from one to two weeks later than Indian corn. When the season is favorable, the planting may be

that is, after the seed has become hard. Before this time, especially after a period of drought, a poison sometimes forms which is fatal to stock. Where there are two growths the second is considered more dangerous than the first, and any stock allowed to pasture on it should be carefully watched.

In feeding the hay, from 18 to 25 pounds a day will be found sufficient for milk cows and work horses, if it is accompanied by the ordinary amount of grain. Beef cattle, however, should be fed all that they will eat clean. Stock cattle and horses can be carried through the winter on a liberal quantity of sorghum without any grain.

INCREASING SOIL FERTILITY

Farmer Can Secure More Cotton by Planting on Area Where Leguminous Crops Have Grown.

Inasmuch as green crops suitable for hog cholera can be maintained in the South practically every month in the year, it is possible for the southern farmer to make more money than the northern farmer upon hog-producing operations, and the profits made are in proportion to the amount of green food used. But in addition to making ready money on the hogs themselves the farmer who grows leguminous crops and grazes them off with hogs has a fertilizer factory on his own farm. In a test at the Arkansas station, hogs grazed upon areas of peanuts, chufas and soy beans. The following two years the land was planted in cotton, and data were collected to determine what effect this grazing might have upon the cotton yield.

The effect was remarkable; for instance, in the case of soy beans and peanuts the increased yield of cotton was 44.6 and 61.1 per cent, respectively. The effects of growing these crops and grazing them off does not stop with the cotton grown the year immediately following the grazing. The data show that the increase over the corn lot was still considerable in the second year. It is therefore apparent that the farmer can get more cotton when it is planted on an area where hogs have grazed or where peanuts, soy beans, or other legumes have been grown.

Cottonseed Meal as Protein. If some mill feed must be purchased as a source of protein, cottonseed meal is at present the cheapest source. A still better solution of the protein question is to grow it in alfalfa or clover hay.

Duck Raising. Ducks are very easily raised and good layers or good market fowls, will thrive in any climate, with a dry shed for shelter.

LIVE-STOCK-FRUIT-DAIRYING-GARDENING-FIELD CROPS-SILOS-FIGS

New Wrinkles
In
Progressive
Agriculture

FARM AND FIELD

Making the
Farmers'
Business
Profitable

TOLD IN AN INTERESTING MANNER EXPRESSLY FOR OUR READERS

BEST LOCATION FOR GRAPES

Plant Two-Year-Old Vines on Southern, Eastern or Southeastern Slope in Straight Rows.

Any good farm land will grow grapes. Plant on a gentle eastern, southern or southeastern slope. If the land is stiff clay it needs drainage. Plant two-year-old vines.

Buy direct from a reliable nurseryman—not of agents. Set the vines in straight rows eight feet apart—the vines eight feet apart in the row, says a writer in Baltimore American. Have the ground deeply plowed and well pulverized, plow out the rows, going twice in each row with the plow. This will save hand labor. Set the vines the same depth they grew in the nursery, spread out the roots, cover with good earth, press the earth, as it is put in, with the foot. After all the earth is in, spread one forkful of long manure, rotted leaves or straw around each vine. This mulch will keep the ground cool and moist.

Drive down a stout stake close to each vine and train to one cane. Tie the cane as it advances in growth to the stake. When four feet in height, nip off the top bud. Cultivate the ground between the rows—the ground must be mellow and free from weeds and grass.

Never let the ground crust over and become hard and dry, as this stops all growth. The best varieties for family use are Concord, Niagara and Delaware. For warm, sandy and gravelly soils, add a few vines of Catawba. It is one of the best grapes for this class of soils—it requires high culture.

SPRAYS FOR APPLE ORCHARD

Ideal Combination for Controlling Various Pests Has Not Yet Been Put on Market.

(By W. J. MORSE.)

In spite of the fact that a large amount of work has been done both in this and in other countries, in studying the effects of different insecticides and fungicides upon the trees themselves and their efficiency in controlling the various insect and fungous pests, the ideal spray or combination of sprays for use on apple orchards has not yet been discovered. It is true that with the introduction of lime-sulphur some of the previous difficulties have been eliminated, but at the same time there are others of equal importance which have arisen or which have not been overcome. This is particularly the case under the climatic conditions which exist in the apple growing regions of the north-eastern portion of the United States, where apple scab frequently appears in its most virulent form.

While it is granted that lime-sulphur, as ordinarily used, has been found to be less likely to produce spray injury, many orchardists maintain that in practical work it is less efficient with them than bordeaux mixture in controlling apple scab. In fact, a prominent apple grower recently told the writer that even with the most careful and thorough spraying with lime-sulphur their fruit the past season was badly attacked by scab and that some orchardists were seriously considering going back to bordeaux mixture this year. On the other hand, it has been the writer's experience that with varieties suscep-



European Apple Canker of Crotch of Tree.

tible to spray injury lime-sulphur is, on the whole, by far the most satisfactory material.

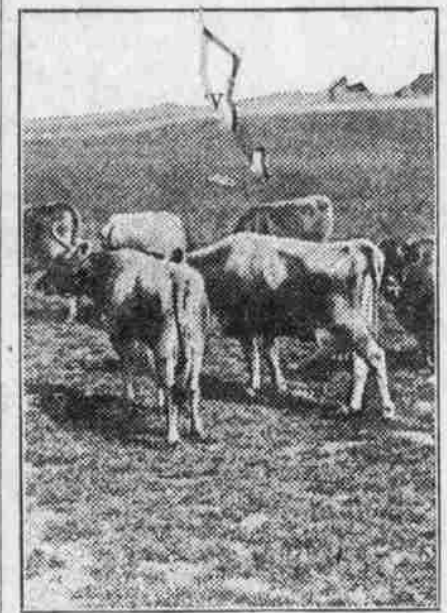
The question of the proper fungicide to use is by no means the only important matter involved in efficient orchard spraying. Insecticides are necessary and it is both necessary and convenient to use them in combination with fungicides. While a fairly settled policy has been reached as to the proper time to apply the various sprays or combinations of sprays to secure the greatest efficiency there is still insufficient data with regard to many points connected with apple culture.

INVESTMENT IN POOR COWS

Milk Producer Must Stop Guessing and Be Certain of Results—Much Money Is Wasted.

Chief obstacles in successful dairying are lack of well balanced, intensive methods and not applying business principles. The milk producer must stop guessing and know for sure what the results will be and adopt the ways of most profit.

Large sums of money are invested in many acres of land, extensive and



Excellent Milk Producers on Pasture.

expensive buildings, costly horses, tools and machinery, high-priced feed and labor, and all of this outlay turned to raising crops that do not yield anything like the amount of digestible nutrients per acre that should and could be obtained, and to feeding and poorly caring for a herd of poor cows utterly unable to return a profit.

The same expenditure of money and labor bestowed in an intelligent manner upon the same farm and an efficient dairy herd would return a handsome profit.

BEST SIZE OF SILO TO BUILD

Not Advisable to Construct Rectangular With Diameter Over Twenty Feet—Right Height.

In building a silo one should plan well the width of the silo. If the silo is too wide for the number of stock to be fed from it daily, there will not be a sufficient amount of silage taken from the silo per day, especially in warm weather, to keep the silage from spoiling.

A depth of 2 to 2½ inches of silage should be taken from the silo per day during the winter months, and a depth of three inches per day during the warm summer months.

If the stock on a farm is equivalent to from ten to fifteen cows, the silo should have a diameter of about ten feet; if equivalent to fifteen to twenty-five cows, a diameter of about twelve feet; if equivalent to twenty-five to thirty-five cows, a diameter of about fifteen feet; if equivalent to thirty-five to forty-five cows, a diameter of sixteen feet; if equivalent to forty-five to sixty-five cows, a diameter of eighteen feet; if equivalent to sixty-five to seventy-five cows, a diameter of eighteen feet.

It is not advisable to build a silo with the diameter over twenty feet. It is a general rule not to make the height of the silo less than twice or more than three times the diameter.

PLAN FOR DEHORNING CATTLE

Illustration Shows How the Head of Animal is Held While Operation is Being Performed.

In reply to an inquiry as to the best method for dehorning a cow a subscriber of Hoard's Dairyman submits the following plan:

"I inclose you a tie for holding cow's head at station while dehorning. I think it the best tie I know. I send you a small model to show how to use it. When cow's head is fast in stanchion, the rope is dropped over cow's neck, the loop is caught on the under side and the rope doubled is put through loop and placed around the nose up far enough to not shut off her breathing, and then pull the rope back to a post at side of stanchion, and one turn around post. A man can hold the end, and by placing his weight on rope hold the cow's head quite solid while her horns are removed. The rope is quickly removed by taking off nose and pulling same."

Singing icebergs have been encountered in the north Atlantic. Even the looman himself emits an occasional snatch of joyous song.

Instead of using asphyxiating bombs, why not load them with ether or chloroform, put the enemy to sleep and then humanely cart him off as a prisoner of war before he awakes?

RAISING DUCKS FOR EGGS AND PROFIT



Runner Ducks, Best Utility Fowl.

The best authorities on Runner ducks agree that the purebred Pencilled Runner lays pure white eggs, and many of them, as invariably as does the purebred leghorn of different varieties. As a result the Runner duck has earned the name of "the Leghorn of the duck family."

As a utility fowl the true Pencilled Runner stands well in the lead, and as other varieties have usually been made from this one, they, too, are proving their worth, when given a chance.

It is fortunate that we have at least one breed that has demonstrated itself as a layer, and for that reason is kept more for utility than show. This makes the Runner duck a farmer's bird.

The Australian and New Zealand egg records are among the proud achievements of those countries, and are a wonderment to many poultrymen. In referring to these records, the breeder of Pencilled Runners gets much consolation, for some of the best egg records of those countries have been made by this duck. In fact, the Pencilled Runner has won over the hustling Little Leghorn there.

In Australia the Utility club has egg-laying contests of great interest. Ducks and other fowl from that continent and New Zealand compete in these contests, and the rivalry is even greater than in our fancy shows in this country. The competing ducks there seem to be mostly Runners and Orpingtons, and both of these have won fine places. Most of the breeders

of ducks here consider six ducks plenty for a pen in breeding for best utility qualities, and it is very interesting to note the type of duck the winners of the contests there are, in comparison with our present show types here. Their ducks are much more heavy and broad, and the type is entirely different in both Runners and Buff Orpington ducks. This is something for our utility breeders to consider.

Probably the world's official record is held by one of those New Zealand Runners. This duck laid 320 eggs in 365 days in her second year. She laid 122 eggs in 23 months, including the molting season. A daughter of this duck laid 177 eggs in 179 consecutive days, and 293 eggs in 314 actual consecutive laying days. When she was two years and eight months old her record was over 500 eggs. The breeder of these ducks mated the females to drakes whose dams had a record of 200 eggs a year or better.

In the Christchurch test the Buff Orpington ducks made a fine record. Both Orpington and Runner ducks have made fine records in the Cambridge tests there, and one pen of both Runners and Orpingtons made a remarkable showing for several months after those tests had ended. In 5½ months after the above tests ended one breeder's ducks laid as follows: Buff Orpingtons, 772 eggs; Pencilled Runners, 749 eggs. This is an average of 129 and 125 per duck for the time above quoted.

SHADE NEEDED FOR POULTRY

Cheap Shed Built of Lumber Is Easily Arranged Where Fowls Are Not Permitted in Orchard.

Whether the fowls must spend their time this summer on the range or in partial confinement, having only a yard in which to run, shade is necessary to their successful growth. To say that shade cannot be provided is nonsense. There may be no trees that can be utilized, it is true, but everyone can plant some vine or even corn near enough to the poultry yard fence, where it will cast shade, or erect a cheap lumber shed, so arranged that its roof will supply shade during a portion of the day, and one end the rest of the warm hours, leaving it open on two sides at least for a proper circulation of air.

A similar structure, or several of them, can be erected on the range if the fowls must not be permitted in the orchard for any reason. Then, remember that during the warm days of summer, clean, fresh water in abundance is also essential, no matter where the fowls and chicks are running. Think of these things now and get them ready, so that when the warm days come the fowls will not need to suffer for even a single day.

CARE IN RUNNING INCUBATOR

Cleanliness Should Be Watchword in Operating Machine—Brooders Should Be Disinfected.

The incubator should be run upon sanitary lines with cleanliness for the watchword from start to finish. The machine should be thoroughly cleaned and scrubbed out before being put into use, well sunned and thoroughly dried.

Use no disinfectants in the operation, however, as they may affect the eggs, by absorption.

After each hatch the trays should be cleaned and aired and the inside of the machine well brushed, but not washed. If the machine is to be started at once upon another hatch, while the trays are taken out and cleaned, it can be closed up and kept up to heat for a few hours and the eggs put in, but the cleaning should not be neglected.

The brooders should be disinfected. But remember that perhaps some sick chicks occupied them last season, making it all the more important for a thorough scalding and cleaning.

KEEP UP GRADE OF POULTRY

Poultrymen Make Mistake in Buying Hatching Eggs or Breeding Stock From Different Breeders.

Many a poultryman, striving to breed up a strain of egg-producing hens, makes the mistake of buying hatching eggs or breeding stock from a different breeder each year. It pays far better to go back, for a number of years, to a breeder who has stock that mates well with and improves the size and egg-producing qualities of the progressive poultryman's stock.

So reports James G. Halpin, head of the poultry department of the University of Wisconsin, who has found that the number of reliable poultry breeders producing just the sort of breeding stock generally needed is rapidly increasing. He believes that the next few years will be a still greater increase along this line for the breeder can afford to line breed his stock and take a great deal of pains building up a strain of high egg producers. The grading up of the farm flock with good, strong males of the right sort of breeding, is one of the principal things needed in the poultry industry at this time.

TREATMENT FOR SCALY LEG

Dipping Feet and Legs of Fowls Affected in Kerosene Will Prove Quite Effective.

Look out for the scaly leg in your stock at this time. After passing through the cold and dampness of the winter months this trouble is quite likely to develop among at least a few of your fowls, and it should be nipped right in the bud or it will run through all your stock. While it is nothing serious or rapid in its work, it is a very annoying trouble and one that will make your fowls very uncomfortable, and at times it will even cripple some where it gets to be a thick scab.

The best treatment is to take a can of kerosene oil, nigh it to the wall of your poultry house, where it will be convenient to dip the feet and legs of each fowl affected in up just to, but not on to, the feathers of the hock joint. This, says Southern Ruralist, repeated every other day for about two weeks will clean it all off except in extreme cases, when it will take longer treatment, to be followed with a little oil or vaseline occasionally to smooth up the surface.