

COMBINE PASTURE AND GRAIN FOR HOGS



Hogs on Pasture at North Dakota Experiment Station.

Pork to be made cheaply should be made quickly. Forage crops furnish the cheapest summer feed for hogs. However, the pasture needs to be supplemented with some grain to secure the most satisfactory gains. The hogs will make more rapid gains on a combination of pasture and grain than on either alone.

In the North Dakota pork production contest it was found that hogs could be made to weigh over 300 pounds in seven months, and pasture formed a part of the ration. Winter rye makes the earliest pasture, but if it was not planted last fall it is too late now. Brome grass makes a good spring pasture. Alfalfa is one of the best pasture plants for hogs. It can be used from spring to fall. Of the annual pasture plants rape is the best. It can be sown early in the spring, and if it is not pastured too close will furnish forage the whole summer. It is often advisable to sow the rape with some grain as oats, barley and peas, sowing a bushel of oats, a bushel of peas and two to four pounds of rape per acre.

For fattening the hogs plant a field of squaw corn. Plant it about the 15th of May, and it will be ready for

turning the hogs into about August 15. The hogs should have some green food when on the corn. Alfalfa or rape are the best. It was found at the Iowa experiment station that hogs made better gains when hogging down corn than when it was husked and fed to them. Plenty of clean drinking water should be provided at all times.

Plan to have the young pigs dropped not later than some time in April and then push them till ready for market by feeding them on pasture and some grain feed till the corn is ready, then feed them on corn and pasture.

If skim milk can be had the hogs will return a good price for it. Screenings can often be fed the hogs. If made up largely of pigeon grass they are about as valuable as corn.

In the pork production contest the main feeds used were corn, oats, screenings, shorts, barley, pasture and skim milk. The average cost of the gains was 3 1/2 cents a pound. It is interesting, too, to note that the average weight of the hogs in the 24 contest that stood highest was 213 pounds at 213 days, or a pound a day from the time they were dropped till seven months old. These gains were made on the feed enumerated above.

MANURE BROME GRASS

RESPONDS QUICKLY TO APPLICATION OF FERTILIZER.

Big Returns in the Yield Are Secured for the Time Spent in Spreading—Produces Good Growth Under Adverse Conditions.

In the spring of 1905 ten acres of brome grass which was seeded in 1899 was divided into two equal parts and on five acres about fifteen tons of well rotted manure was added per acre. The five acres which had been manured yielded when cut for hay 14,505 pounds—the unmanured five acres gave 8,900 pounds of hay or 1.48 and .38 tons per acre respectively. This field was too old a sod to remain a good hay producer, but as it was needed for pasture a little later it was not considered advisable to plow it up.

A one-third acre plot of brome grass was seeded in 1902. In 1903 it yielded 1.75 tons of hay per acre and in 1904 it was cut for seed. Just after removing the seed crop it was manured heavily, with well decomposed manure. The crop of hay produced the following year (1905) yielded at the rate of 2.50 tons per acre. When the crop was removed in 1906 the plot was divided into equal parts and one-half was again manured heavily. In 1907



Brome Grass.

the part manured gave a yield of 2.75 tons of hay per acre, while the other plot gave 1.95 tons per acre. A vast difference was noticeable between the two plots during the summer and yet the preliminary effect of the manuring in 1904 could still be detected. In 1904 the brome grass showed that condition which is called sod bound, but that look disappeared after it was manured. The same conditions were seen in the field trial noted above.

Grass always responds quickly to an application of manure and gives big returns in yield for the time required to do the work of spreading the manure. Hay and pasture fields are considered the best on which to scatter the manure.

The results show that the poor yields of brome grass and its inability to produce stems and long leaves after it has been seeded for a few years is not entirely due to the "sod-bound" condition of the grass. Heavy applications of manure cause the sod to become still denser, yet the yield is improved. It is safe to conclude that the reduced yield of brome grass after it has stood for a few years is as much due to the reduced fertility in the soil as to the density of the sod. Previous trials show that brome grass is a ravenous feeder upon the soil fertility and that it uses larger quantities of water than most hay plants. However, it roots deeply and sends its rootlets farther for moisture than any other commonly grown grass. No grass surpasses brome grass in its ability to produce a good growth in dry years or under adverse weather conditions.—North Dakota Experiment Station.

GROW ALFALFA IN ROTATION

Introduction of the Crop on the Farm Will Produce Very Marked and Favorable Results.

One common objection to alfalfa is that it does not fit well into the rotation. Alfalfa is likely to be such an important crop in North Dakota that this objection is liable to be overruled. The corn and alfalfa crops will develop together in great measure, corn taking the lead. It will generally be found advisable to have alfalfa follow corn. After four or five years in alfalfa, the land may be devoted to small grains for two or three years, and finally another crop of corn be planted.

But very few farmers would care to put their entire farm into a rotation of this kind. However, there is no reason that a limited portion should not be set aside for a rotation of this nature. Before breaking an alfalfa sod it is generally best to get another piece established in alfalfa, for when once alfalfa has been used it is growing too highly not to have it promoted.

Whatever the rotation adopted by the farmer, there is no doubt that the successful introduction of alfalfa culture upon the farm will produce very marked and favorable results. This rule has been without exception in all other districts.—North Dakota Experiment Station.

Canary Seed.
It takes but a trifling amount of seed to fill the cup in a canary bird's cage, but a canary would probably consume or waste in the course of a year ten pounds of seed, so that the amount required for all the birds in the country is enormous. The value of all the bird seed imported in a year is from \$350,000 to \$400,000. It would probably be putting it very moderately to say that the bird lovers of our country pay out for bird seed as they buy it in retail form, more than \$1,000,000 annually.

Marked by Ribbons.
Women guides and interpreters in Budapest wear a different colored ribbon for each language which they speak. They are to be seen walking about the city, waiting at railway stations and driving in carriages. Some have two or three ribbons, and others have four, five or six. Bright red represents English, a heliotrope or lavender is German, a brilliant yellow means French, a pale blue is Italian, a brown means Danish, Dutch is a Nile green, and so on throughout all the colors and most nations of the earth.

How the Dutch Eat.
A Dutch meal is always reminiscent of a game of cards, for the mother deals out all round the table, and when that first hand is played out she deals afresh, and so on until the dish is empty. There is no promiscuous serving, as with us, and the quick feeder (if such a person could exist in leisurely Holland) reaps no advantage. If meals are to be likened to games of cards, our meals in Dutch eyes must look like games of "grab."—London Queen.

MAKING PROFITS FROM PORK

Quick Money May Be Obtained From Swine Fed on Corn, Pasture, Skim Milk and Grains.

Hogs will turn corn, pasture, skim milk and grains into money quickly. If fed these foods in good proportions and in sufficient amounts, the returns will be better than could be secured for these foods on the market.

In the North Dakota Pork Production contest, conducted under the supervision of Thomas Cooper, director of the North Dakota Experiment station, these foods were fed and the cost per pound of gain was on an average 3 1/2 cents, food prices as follows: Corn, 49 cents per bushel; oats, 53 cents; barley, 45 cents; rye, 57 cents; bran and shorts, 19 cents; screenings, 10 cents; skim milk, 25 cents per hundredweight; grass pasture, \$3.49; per acre and annual pasture, \$5.54. No charge was made for house slops. The value of the pork was about twice the cost of producing it. This means that the hogs paid about twice the market price for the foods. This is but half the story. The hog as well as other kinds of stock makes use of many kinds of food that there is no market for. The skim milk, for instance, was valued at 25 cents a hundred pounds and the hogs returned more than that. The corn in many cases was not ripe enough to market yet the hogs paid about twice the market price. Hogs do very well on pasture. True it costs some to fence, but it takes money to pay for twine, threshing and the labor it takes to raise a grain crop; and that expense comes every year. The fence, when once bought, will last a good many years. The labor of moving the fence is not so great as one might think. The moving can be done when other work is slack.

One important factor in the pork production contest was the age at which the hogs were marketed. They were from spring litters, and the contest closed November 20. At this time the hogs in the 24 exhibits that stood highest averaged 213 pounds at an average of 213 days.

The main foods used were pasture, corn, barley, oats and skim milk. The pasture should be made the main part of the hogs' summer feed. The best permanent pasture is alfalfa, though timothy, or even prairie grass, can be used. Of annual pastures any of the grains, peas, corn and rape can be used. Fall rye furnishes the earliest pasture in the spring. This can be followed with barley and rape and this supplemented with Gehu corn by the middle of August. It was found at the Iowa Experiment station that in hogging down corn much better and cheaper gains were secured when the hogs also had access to rape, alfalfa, blue grass or timothy, rape and alfalfa being the best. It has also been found that the hog, when on pasture, makes a more satisfactory growth if some grain is fed at the same time.

Spray for Coddling Moth.
In spraying for the coddling moth make the first application at the time the blossoms are about all off the trees.

Cockereis Are Nuisance.
A lot of big cockereis running around with laying hens will make a nuisance of themselves.

GREEDY HABIT AMONG HORSES

Good Plan is to Arrange Feed Box So That Oats Are Accessible in Very Small Quantities.

Some horses, like some men, injure themselves by eating too fast. Some horses are also great wasters of feed. The greedy habit can be broken in horses in a number of ways. One good plan is to place a number of smooth stones about the size of hen's eggs in the bottom of the box and in turning these over in search for feed, more time will be consumed in chewing



Box for Greedy Horse.

what he already has in his mouth. Still another way is to provide feed boxes like the one shown, writes Chester Hayes of Fillmore county, in the Nebraska Farm Journal. The oats are put in a hopper and are accessible to the horse only as he keeps them licked away from the passage through which they come. This opening may be made very narrow.

CARE REQUIRED FOR ALFALFA

Cultivation Aerates Soil, Tends to Destroy Weed Growth and Conserve Needed Moisture.

(By L. R. WALDRON, Superintendent of Dickinson Sub-Station.)

Alfalfa does not require much care the first season. If weeds come up quickly, as they usually do, it is well to clip the alfalfa, tilting the mower bar and running it high. Care should be taken not to cut the alfalfa too short. The field may be clipped two or three times during the season, as necessity arises. If the alfalfa is sown on low ground it may be necessary to remove a crop of hay. This should be done early enough so that the alfalfa will make a good growth after cutting. Ordinarily the clippings may be left upon the ground. The alfalfa is liable to be injured when clipped too young. It is generally recognized that alfalfa stubble should have sufficient height at the beginning of winter to afford protection to the plants by the catching of snow. Prof. Thomas Shaw states that under his direction, in Montana, alfalfa was harrowed the first season with distinct advantage. Such harrowing cannot be done until the roots are fairly well established.

In the spring of the second season the alfalfa may be benefited by harrowing or perhaps a light disking. A machine known as the alfalfa renovator is being used to a considerable extent. The cultivation of the alfalfa aerates the soil, tends to destroy the weed growth, conserves the moisture and works the fallen alfalfa leaves, lying upon the ground, into the soil. The working up of the surface, making it rough, also tends to prevent the runoff from rains.

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Hence the Woman Who Studies the Advertisements Does Not Acquire a "Bargain-Hunting Mania"

The chief profit a woman wins from studying the advertisements does not consist in the immediate savings she is able to make on her purchases at the stores—although these are worth while.

She acquires, day by day, a complete KNOWLEDGE of VALUES. And this is vastly more worth while.

To assume that ad-reading cultivates in a woman a mania for buying, leading her to purchase things not at all needed simply because the prices are attractive, is as absurd as the older idea that KNOWLEDGE WAS DANGEROUS—that education "spoiled a woman for home duties."

Buying for the home is a business matter, strictly. If a woman has business knowledge she utilizes it, with profit, in her buying. She is less likely to be influenced to buy what is not needed, for she makes of her buying a continuing test of her capacity to manage the home.

She succeeds or fails according to the manner in which she meets this test. She would fail utterly if she ignored the store advertisements. For these afford her hints and suggestions and information which she could not obtain otherwise.