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Early Maturing Grain Crops For Hogs

**A Plan For Providing the Earliest
Home Grown Feeds
In
South Dakota**

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W. F. Kumlien, Director, the United States Department
of Agriculture Cooperating.

Early Maturing Grain Crops.

A feed shortage for hogs, mainly of corn, is a present problem of real importance to most South Dakota farmers. Even with those farmers who have plenty of corn the present and advancing market for corn is likely to take most of it to market. All of this means that any crop which will help to supply cheap feed for hogs until the 1925 corn crop is ready to harvest, will tend to give hog growers more of a chance to make a profit.

In order to help solve this problem the following plan is offered:

1. Grow barley for early feed.
2. Grow early flint corn, or a very early variety of dent corn to be hogged off.

There are thus two means of supplying 1925 home grown feed for hogs from middle summer until such time as the regular corn crop is mature. Such a plan will give an opportunity to market more of the 1924 corn crop as grain without the danger of running short of feed for the spring pigs in late summer and early fall or for the fall shoats if they are held for summer feeding.

Barley as a Feed for Hogs.

Barley makes a very acceptable hog feed in the place of corn. It generally is considered that it has about 80 to 85 percent the feeding value of corn

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as a fattening feed. It always should be considered as a fattening rather than a growth producing feed. Perhaps one of the best ways to get new crop grain to feed in the shortest time would be to sow one or more acres of hulless and beardless barley for hogging down. The acreage to sow would depend on the number of hogs to feed. The hogs could be turned in this barley just as soon as the kernels are in the hard dough stage. While there would be some waste in hogging off the barley and while the hogs would not make as efficient use of it as they would if it were harvested, threshed and ground, the time saved in getting the cheaper feed, and the labor and expense of harvesting saved, probably would make up for any waste and loss from this method of feeding. This of course, applies only to the small patch grown for early feed. If it is impossible to hog down this small patch of barley it can be cut with a binder and fed to the hogs in the bundle. By following either of these methods the time ordinarily taken to harvest and thresh the crop would be saved and the feed made available for the hogs just that much sooner.

Barley which is harvested and threshed in the ordinary way can then be fed from the time it is ready until the early flint or dent corn is hard enough for the hogs to be turned in the field. For best results the threshed barley always should be ground when fed to hogs. The use of a small amount of tankage along with the ground barley and pasture will make for cheaper gains. Experiments conducted at the South Dakota Experiment Station have shown decidedly that when both ground barley and tankage are fed, cheaper results will be obtained by mixing the two than by feeding each in separate self feeders. If the hogs have access to a good alfalfa, clover, or rape pasture the entire season, so much the better. Hogs fed on pasture make cheaper gains than hogs fed in a dry lot.

If hulless barley is planted to be hogged-off it would be advisable to sow three pounds of Dwarf Essex rape seed per acre with the barley. The rape will furnish much cheap forage during the hogging-off period and until late in the fall.

Barley Culture in South Dakota.

Barley generally produces more pounds of grain per acre than any other small grain crop. In the best corn growing sections it does not produce as much feed per acre as corn. For 1925 however, to help out in the corn shortage problem, barley can well be considered a good crop to grow. The following notes on barley culture are taken from South Dakota Experiment Station Bulletin 183.

The seed bed for barley should be firm with a shallow mulch on the surface. Barley responds readily to good crop rotation methods. For best results, barley should follow an intertilled crop such as corn. Such land is easily prepared for barley and also produces a good seed bed.

Barley should be seeded during late March or in April, preferably before the 20th of the month. There is no one thing that will help increase the yield and quality of barley so much as seeding at the proper time.

Barley should be seeded at the rate of from 4 to 7 pecks per acre. The best rates of seeding vary somewhat according to the condition of the land, the locality and the variety grown. For ordinary farm land five or six pecks would be a safer seeding than four.

Barley should be seeded about two inches deep. The seed may be somewhat deeper in a loose or a dry

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soil than in a compact or wet seed bed. Barley is best seeded with a grain drill. If it is necessary to broadcast the seed, a little more seed should be planted, also extra care taken to plant as even and uniformly as possible.

Varieties

of Barley: Barley varieties which are recommended for planting are as follows:

The hulless barley is recommended only for small acreages and to supply the earliest possible 1925 grain feed for hogs. Some hulless barleys are bearded and some beardless. The beardless and hulless are the best types to plant for "hogging-down". The beardless barley (not hulless) is the next best type of barley to plant for "hogging-down". For the larger acreages the ordinary bearded and hulled barley is recommended because of its large yields, and lower seed costs. Plant this type of barley - not for "hogging-down" - but to be harvested and threshed as a grain crop which later be ground and fed to the pigs.

Hulless Barley - Most of the hulless barley offered for sale is of two different types, namely:

1. White Hulless Barley. A 6 rowed beardless and hulless barley.
2. Black or Blue Hulless Barley. Has no hulls but some beards. This is classified as the Himalays or Guy Moyle barley by the U. S. Department of Agriculture. Also sold under the name of Blue Arabian.

Seed of the above two named barleys can be purchased from seed companies or from a few growers whose names can be secured from County Agents or writing to the S. D. Crop Improvement Association, Brookings, S. Dak. Some seed companies advertise simply "hulless

barley". Prices range from \$1.50 to \$2.75 per bushel of 48 pounds.

3. Nepal hulless barley is a variety tested by the S. D. Experiment Station. Seed of this variety selling under this name, is scarce. This is a white, hulless, beardless barley however, and much of the white hulless barley sold may be of this variety.

Beardless Barley - This is not a hulless barley. Some seed companies and growers are offering this type of barley not under any particular name but simply as "Beardless barley". This barley sells at a lower price per bushel than the hulless barley. The S. D. Experiment Station has tested the Horsford variety of barley, a white, hulled, but beardless barley, 6 rows. This barley sometimes sells under the name of "Success Beardless", also "White Beardless".

Bearded, Hulled Barley - The South Dakota Experiment Station recommends the following varieties of this type of barley for South Dakota.

1. Manchuria S. D. 105. A Nodding, 6 rowed barley recommended for the eastern one-fourth of South Dakota and particularly for rich lands or low lands. Some seed companies offer "Manshury" barley which is only another name for Manchuria. Most seed companies offer "Oderbrucker" barley. This barley is very similar to the Manchuria, and probably has a common ancestry with it. Selections of the Oderbrucker are commonly grown in Wisconsin, while selections of the Manchuria are more common in Minnesota and South Dakota.

2. Odessa S. D. 182. An erect, 6-rowed barley. Gives good results in all parts of South Dakota and is recommended as the general purpose barley for the state as a whole. This variety is not generally offered by

6. seed houses but there are many growers in the state have seed to sell. Such a list can be secured from County Agents or from the S. D. Crop Improvement Association, Brookings, S. Dak.

3. Harrohen, S. D. 20. The leading 2-rowed type of barley. It has nodding heads and is often nearly beardless at harvest time. Especially recommended for the north central counties including Campbell, Walworth, McPherson, etc.

4. White Smyrna S. D. 28. The earliest maturing 2-rowed barley for South Dakota. Very resistant to drouth and valuable for western S. Dak.

5. Chavalier II. This is a 2-rowed barley which has proven the best variety under irrigation in western South Dakota. It is able to produce heavy crops under favorable moisture conditions.

6. The Trebi is a 6-rowed barley which is the highest yielding 6-rowed barley tested at Newell, S.D. It has yielded almost as well as the Chavalier II.

Summary: Thus the plan with barley works as follows:

1. Plant hulless or beardless barley for earliest hog feed, to be hogged off or cut with binder and fed in the bundle.

2. Plant ordinary bearded and hulled barley for production of grain which is to be ground and fed to hogs.

The entire barley acreage could be planted to the hulless barley but the seed is high in price and the yield not as high as the ordinary type. This hulless barley is really planted to furnish the earliest possible feed and because the hogs can do their own har-

vesting at a time of the year when the farmer is very busy. For the production of large amounts of barley grain - to be ground and fed to pigs - plant the ordinary bearded and hulled barley. This type of barley cannot be "hogged-off" or fed in the bundle with anywhere near the success of the hulless barley. This type of barley should be threshed and ground before being fed, for best results.

Hogging-Off Early Corn.

The practice of planting a few acres of flint corn for early feed to be hogged off is by no means a new one on many South Dakota farms. This is a good farm practice almost every year and especially so in times when there is a shortage of corn and other feeds for hogs. Thus in 1925 a field of early flint corn will be a big help in furnishing feed for the hogs from one to three weeks before the regular plantings of dent corn are ready to feed.

Experiment station results, and farm experience as well, have shown repeatedly that the practice of hogging off corn is a good one. Hogs make cheap gains in the corn field and while doing it save the expense of harvesting the corn. Some of the advantages of hogging down corn follow:

1. The cost of husking is saved.
2. The cribbing space is saved.
3. The droppings of the hogs are distributed in the field.
4. Rape or other forage can be sown in the corn, especially in poor stands, thus giving a larger production of pork to the acre.

The average of trials at four experiment stations show that pigs hogging down corn made about three pounds per head more gain in a month than pigs fed ear corn in

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the ordinary way. The pigs fed in the yard also ate 35 pounds more corn and tankage or corn and middlings to make 100 pounds of gain than did the hogs turned in the corn fields.

It is a good practice to sow rape at the last cultivation in corn that is intended for hogging down. The seed does not cost very much and should weather conditions be favorable for a good growth, the hogs will make decidedly faster and cheaper gains when turned in the corn. Even when rape is sown in the corn, or the hogs have access to good pasture as well as the corn, it usually will pay to feed a small amount of tankage and oil meal. A mixture of tankage and oil meal fed in a self feeder is excellent.

An experiment conducted at the South Dakota Experiment Station at Brookings in hogging off corn showed that flint corn, pound for pound, is about equal to dent corn for hogs. An acre of flint corn, however, because of a lighter yield was not quite equal to an acre of dent corn in pounds of pork produced. In those cases where the yield would be the same, preference simply from a feeding standpoint, should be given to the one which will mature the quickest. In many cases also, a few days saved in the time required in getting mature corn from the flint might more than offset a heavier yield from the dent.

Flint Corn Culture in South Dakota.

The growing of flint corn is essentially no different than growing dent corn. Because dent corn culture is well enough understood in all parts of South Dakota, there is no need to discuss it in this brief circular. The same good practices in growing dent corn should be followed in growing flint corn. In the central and southern parts of the state the early flint corn can be planted thicker than the usual planting rate for dent corn.

Some growers may hesitate to plant flint corn because of its crossing with their dent corn. The earlier flint will quite largely have passed the pollinating stage before the dent corns come into that stage, hence there can be little or no crossing. Moving the "seed-producing" fields of dent corn far enough away from the small fields of flint corn will also help to prevent crossing.

If some farmers, especially in central and southern South Dakota, do not want to plant the flint corns they can secure semi-dents or small, early maturing dent corns which will mature earlier than their regular dent varieties.

Varieties

of Flint Corns: There is a wide difference in the type of corn grown between southeastern South Dakota and the northwestern corner of the state. Other big differences occur between these and other sections of the state. This means that recommendations cannot be made in this brief circular that will apply to every section of the state. Every farmer must first understand the idea and then make its application to his own conditions. The main idea is to plant in 1925, a small acreage of the type of flint corn which will produce corn from one to three weeks earlier than the corn which is usually planted on most of the corn acreage on each individual farm. Thus, for example, in the southeastern part of the state where corn requiring 110 or more days to mature is generally planted, a small field of early flint requiring 70-90 days to mature is planted to supply the earliest 1925 grown corn for hogs. In the northern and higher parts of South Dakota the same idea still holds but of course there will not be the big difference between the date of maturity of the early flint and the dent corn commonly planted because the dent corn is an earlier maturing corn than that grown farther south. There will still be sufficient difference however, to warrant planting a few acres of early flint corn.

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Probably the biggest question in connection with planting early flint corn is that of what variety and where to secure seed. The following varieties are named in the order of their usual date of maturity and their desirability for the purpose outlined in this circular. Sources of seed are from seed houses and from the seed list compiled by the S. D. Crop Improvement Association, Brookings, S. Dak. Copy of such list can be secured from the Association and from County Agents.

Early Flints - Very early, maturing in 70-90 days depending on the season and locality. High yields of ear corn. Small ears born close to ground. Short of stalk. Adapted to harvesting by livestock. Buy northern grown seed as southern grown seed will produce a later maturing plant.

1. Gehu Flint. Early Yellow Flint. Seed can be purchased from every northern seed house, also from growers.

2. Dakota White Flint. Early White Flint. Small cob. Do not confuse with large cobbed, late white flints. If this corn is offered for sale under some other name, such as "White Squaw Flint", make sure it is the dwarf variety for the production of grain for "hogging-off" and not for fodder production, before buying.

3. Rea corn. An early flint which is similar to Dakota white flint. Listed separately here because it is known by some growers and sold by them under this name.

4. Other Early Flints. Some northern seed houses make a speciality of early seed corn and they offer the

following early flints: Burleigh County mixed; Assimboine Flint; Shota Flint.

Late Flints - The late flints will not mature as early as the early flints but at about the same date as the semi-dents and dent varieties listed in this circular. If northern grown seed is planted, these late flints could be used in the southern part of South Dakota. Also if early maturing strains of these later flints have been developed, and they are planted, they will mature early enough to help solve the problem of early feed. Some of these varieties as they are listed in seed catalogs and by individual growers are: 1-Rainbow mixed flint. 2-Mercer yellow flint. 3-Longfellow yellow flint. 4-King Philip red flint.

Flour Corns - This is a soft kernalled type of corn which does not have the hard, flinty covering of the flint corn. It is generally white in color and there is an early type which should be secured if it is to be planted for "hogging-off". The Mandan white flour corn is such a type of corn. There is also a later, larger growing type which should not be planted for "hogging off".

Varieties of

Semi-Dent Corns: There are a number of semi-dent corns which are as early as the later flints. Northern grown seed of these varieties should be purchased as southern grown seed will produce a later maturing plant.

1. Wimples Hybrid. A yellow semi-dent maturing in 90 days. Developed by A. J. Wimple, Beresford, South Dakota, for use in southern South Dakota.

2. Falconer Corn.

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3. Northwestern Dent; 4-Minnesota No. 23
(White Cap Yellow Dent); Gurney Aug. 15)

Varieties of are
Early Dent Corns: There is a number of very early
dent corns which are listed here
for those who do not want the early flint corns.
Here again northern grown seed should be used.

1. Pioneer White Dent.
2. Squar Deal, Yellow Dent.
3. Brown County Yellow Dent.

For further information see your County Agent
or write to the Extension Service, State College,
Brookings, South Dakota.

This brief circular is written especially
to meet feed conditions in 1925, but it will
apply with equal force during any other year
of a similar feed shortage.

Also, all or parts of this plan can be
profitably followed every year on all farms
where hogs are produced.