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CC77 Greater Production Through Better Practices

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Greater Production
THROUGH
BETTER PRACTICES

Extension Service, University of Nebraska
College of Agriculture, Lincoln, CC77
This Year

Nebraska farmers wish to produce every ounce of food possible for the war period. The extent of their production will be limited by the availability of labor and equipment, the productivity of their land, the fortune of weather, the depredations of insects, rodents and disease, and the knowledge, skill and energy used in meeting these problems. To be a good farmer requires a broader knowledge and a greater diversity of skills than is required by many other professions. In these times, the normally long hours of work on the farm must be longer still. Many sons and daughters, and customary hired help, have gone to war or to city industries. Many tasks on the farm will be slighted because of shortage of help and equipment. Total production, therefore, will tend to be reduced. To compensate in part for this loss, attention is called to the practice herein listed. They suggest means by which production may be increased. In most instances, these practices can be carried out with little or no extra labor, equipment or investment.
Greater Production Through Better Practices

D. L. Gross, M. N. Lawritson, E. W. Janike

Adapted Varieties

The use of the best available grain varieties by every farmer in Nebraska would increase annual yields by many millions of bushels at very little extra cost for seed, labor or tillage operations. By using seed free of mixtures, a higher market grade of grain would be produced. The leading small grain varieties for Nebraska are as follows: (See Nebr. Bulletin 328).

<table>
<thead>
<tr>
<th>Wheat</th>
<th>Oats</th>
<th>Barley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeast Nebr.</td>
<td>Pawnee-Nebred</td>
<td>Cedar-Otoe</td>
</tr>
<tr>
<td>Northeast Nebr.</td>
<td>Nebred</td>
<td>*Cedar</td>
</tr>
<tr>
<td>Western Nebr.</td>
<td>Cheyenne-Nebred</td>
<td>Brunker-Trojan Ezond-Spartan</td>
</tr>
</tbody>
</table>

* Where Cedar is not available Tama or Boone may be substituted.

** Trojan is recommended on irrigated land because of its stronger straw.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Time of Seeding Spring Grains

At the Nebraska Experiment Station at Lincoln, average acre yields of small grains seeded at different dates over a period of years have been as follows: (Similar results have been obtained at the North Platte Station).

<table>
<thead>
<tr>
<th>Date of Seeding</th>
<th>Otoe oats</th>
<th>Iogold oats</th>
<th>Fulghum oats</th>
<th>Spartan barley</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 20</td>
<td>37.7</td>
<td>37.4</td>
<td>36.0</td>
<td>32.4</td>
</tr>
<tr>
<td>March 30</td>
<td>38.5</td>
<td>35.4</td>
<td>32.4</td>
<td>31.5</td>
</tr>
<tr>
<td>April 10</td>
<td>36.5</td>
<td>30.7</td>
<td>22.4</td>
<td>29.0</td>
</tr>
<tr>
<td>April 20</td>
<td>31.6</td>
<td>23.6</td>
<td>13.9</td>
<td>23.2</td>
</tr>
<tr>
<td>Gain *</td>
<td>6.1</td>
<td>13.8</td>
<td>22.1</td>
<td>9.2</td>
</tr>
</tbody>
</table>

* Bushels gained by early over late seeding. It should be noted that Otoe oats, a very early maturing variety, is a good one to seed late when weather or other conditions make late seeding necessary. Fulghum, a winter oats, must always be seeded early. Slightly later seeding dates for all varieties is recommended for western and northern Nebraska. Seeding dates earlier than those indicated may result in frost damage.
Seed Treatment

All small grain should be treated for smut before seeding. Smut has been known to reduce yields nearly 100%. (See Extension Circular 148.) Treatment for oats, barley, wheat and sorghum: Coat the seed thoroughly with one-half ounce of new improved Ceresan per bushel. Copper carbonate may be used for wheat and sorghum at the rate of 2 to 3 ounces per bushel.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Time of Seed Bed Preparation for Wheat

Eleven year average yields of winter wheat per acre as affected by the method and time of seed bed preparation at the Nebraska Experiment Station, Lincoln.

<table>
<thead>
<tr>
<th>Seed Bed Preparation</th>
<th>Bu. per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plowed July 15—Disked August 15</td>
<td>33.9</td>
</tr>
<tr>
<td>Disked July 15—Plowed August 15</td>
<td>31.0</td>
</tr>
<tr>
<td>Disked July 15 and August 15—Plowed Sept. 15</td>
<td>28.1</td>
</tr>
<tr>
<td>Plowed July 15—Not disked in August</td>
<td>27.2</td>
</tr>
<tr>
<td>Disked July 15, August 15 and Sept. 15</td>
<td>26.6</td>
</tr>
<tr>
<td>Plowed Sept. 15</td>
<td>20.0</td>
</tr>
</tbody>
</table>

* All plots were harrowed immediately after plowing and were disked just prior to seeding.

Plowing deeper than 5½” for winter wheat did not materially increase yields. Early plowing reduces weed growth, conserves soil moisture, and favors nitrate development in the soil.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Average Yields of Winter Wheat—1906 to 1931—North Platte Substation

<table>
<thead>
<tr>
<th>Previous Crop</th>
<th>Tillage or Treatment</th>
<th>Bu. per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>None (fallow)</td>
<td>Clean fallow</td>
<td>30.1</td>
</tr>
<tr>
<td>None (fallow)</td>
<td>Weedy fallow</td>
<td>22.2</td>
</tr>
<tr>
<td>Potatoes</td>
<td>Disked</td>
<td>21.6</td>
</tr>
<tr>
<td>Small Grain</td>
<td>Early plowing—clean tillage</td>
<td>20.4</td>
</tr>
<tr>
<td>&quot;</td>
<td>Early plowing—clean tillage, manure</td>
<td>17.3</td>
</tr>
<tr>
<td>&quot;</td>
<td>Early disking—late plowing</td>
<td>16.7</td>
</tr>
<tr>
<td>&quot;</td>
<td>Early disking</td>
<td>15.2</td>
</tr>
<tr>
<td>&quot;</td>
<td>Late plowing</td>
<td>14.7</td>
</tr>
<tr>
<td>Corn</td>
<td>Corn removed—land disked</td>
<td>20.4*</td>
</tr>
<tr>
<td>&quot;</td>
<td>None—planted between corn rows</td>
<td>16.1</td>
</tr>
</tbody>
</table>

* In a corn wheat rotation the corn yielded 20 bushels per acre.
Combine Pick-up for Harvesting Oats and Barley

Oats and barley combined before they are fully ripe are likely to heat in the bin resulting in loss in feed value, lowering of the grade, and damage to germination. If permitted to ripen completely, shattering may occur and danger of weather and insect damage is increased. These problems may be largely overcome by windrowing the crop at the stage normally accepted as proper for binding. Windrowing may be done with the binder, header or mower. When cured the crops may then be threshed with a pick-up combine. This method of harvest requires much less labor than shock threshing and often results in a better quality of grain.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Alfalfa

Ranger and Hardistan are wilt resistant strains and should be used on irrigated, sub-irrigated or low lands where the wilt disease is likely to destroy stands. Grimm and Cossack are very winter-hardy but susceptible to wilt. They are good for uplands. Ladak is a productive variety with medium resistance or tolerance to wilt.

Cut the first crop of alfalfa at the early bud stage to prevent excessively rank growth. This gives a more easily cured hay that is higher in protein and higher in palatability. The second and third cuttings should be made at the tenth bloom stage. Making all cuttings at the early bud stage would damage the stand. One earlier than normal cutting each season does no harm and may allow a fourth cutting without damage to the stand.

Final curing of alfalfa in the windrow tends to preserve the leaves of alfalfa. 75% of the protein in alfalfa hay is in the leaves.

Tall alfalfa stacks with vertical sides and rounded tops can be expected to have less spoilage than lower stacks or those with pointed tops. Very low pointed stacks which slope inward all the way from the base, have the greatest amount of spoilage. Stack spoilage from rain occurs both vertically and laterally, thus the stacks having the greatest diameter and height, have the lowest proportion of spoilage.

Stacking alfalfa hay while slightly moist from dew or rain causes molding in the stack. Stacking alfalfa when free of external moisture but slightly under-cured will likely not cause molding but may result in some heating, and “tobacco brown” hay may be formed. This results in some loss of feed constituents including vitamins. Stacking at this stage may be justified if there is likelihood of greater damage to the hay from rains. Alfalfa subjected to rains and to slow curing thereafter is reduced in both tonnage and feed value. This is most likely to happen to the first cutting.
Corn Production

Careful choice of hybrids based upon local performance tests, is very important. Adapted first generation hybrids can be expected to yield 15 to 25% more than local open pollinated varieties. Good hybrids can be harvested with less labor because they are more uniform, stand better, and have fewer fallen ears.

A combination of early, medium and late plantings or a choice of hybrids differing in time of maturity, reduces the chances of crop failure, and extreme annual variations in yield.

The best yields are obtained when the stands of corn are in keeping with the conditions under which the crop is grown. The following distances between plants in the row are suggested where the rows are 40” apart: under irrigation, all parts of the state, 10 inches. Without irrigation, Eastern Nebraska, most favorable 14”, least favorable 20”; Central Nebraska: most favorable 20”, least favorable 24”; Western Nebraska: 24” to 28”. Hybrids of large vegetative type require more moisture per plant than do the smaller types and therefore should be spaced somewhat farther apart.

Surface planting on irrigated land can be expected to give better stands and higher yields than listing.

Frequent use of the harrow or rotary hoe immediately after planting and until the corn is large enough to be cultivated easily without covering, is an effective method of weed control on surface planted corn. Weeds can greatly reduce corn yields.

Deep tillage at the last cultivation may seriously reduce yields.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Successful Soy Bean Production

Soy beans cause soil to erode easily. Keep them on level or nearly level land or plant them on the contour. Select land not too foul with weed seeds and reasonably fertile. Plow, disk and harrow the seed bed in April or early May. Destroy weeds just prior to planting. Plant in late May or early June. Surface plant with the corn planter, using bean plates. Rows 36”-40” apart; beans one to one and a half inches apart in row, and one to one and one-half inches deep. For eastern Nebraska use the Dunfield, Illini, Lincoln, or Muckden variety. For late planting the Richland variety is recommended. For central Nebraska use the Dunfield and Richland varieties. Be certain that the germination is good. Inoculate the seed just before planting. As soon as the beans are well up, harrow or rotary hoe as needed to destroy weed seedlings until beans are about 6” to 8” high. Cultivate as needed. Do not ridge the rows. Do not cultivate after the beans start to bloom. Harvest with a combine when fully ripe and dry. Adjust combine to prevent cracking.
Flax Production

Flax may be grown in all parts of Nebraska. (See Ext. Cir. 155). Under favorable conditions it can be expected to yield from 10 to 20 bushels per acre. Flax will usually give the best yields on weed-free, fall-plowed land. It is more commonly planted on spring plowing. For best results it must be seeded in late March or early in April on a firm seed bed. It is best seeded with a drill at the rate of 40 to 50 pounds, or as much as a bushel per acre (56 lbs.) on weedy land. Somewhat more than a bushel should be seeded if broadcast. A somewhat lower rate of seeding is recommended for western Nebraska. The Biwing and Bison varieties are recommended. Flax is ready to harvest when nearly all of the bolls are brown. It is best harvested by first windrowing with a binder, header, or mower, and then threshing with a pickup combine when dry. It should be threshed promptly when dry in order to avoid spoilage from rains. Higher than normal prices are usually necessary for profitable flax production in Nebraska.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Crop Rotations

In eastern Nebraska and on irrigated land elsewhere in the state, nitrogen often becomes the limiting factor in crop production. Nitrogen is supplied to the soil thru crop residues, manure and legumes. Where soil moisture is adequate, one of the best rotations in the general farming area involves the planting of sweet clover with all spring sown small grains. The sweet clover is plowed under at the beginning of its second year’s growth and the land planted to corn for two years. Under irrigation the sweet clover may be permitted to make considerable growth before it is plowed, providing such growth does not dry the soil excessively and thus interfere with the preparation of a good seed bed.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Save Soil Moisture

Much soil moisture is lost through weeds growing on small grain stubble. Conservation of this moisture by disk ing or sub-surface tillage to destroy the weeds immediately after harvest usually means increased yields of the following crops. Preservation of the stubble and other plant residues on the surface greatly increases water intake and reduces evaporation. Wind and water erosion are reduced by this practice.

Run-off and erosion are greatly reduced and yields of spring sown small grains on corn stalk land are increased if the stalks are cut and left on the surface rather than burned or otherwise removed. Decomposed corn stalks improve the soil.
Seeding Grasses and Legumes

Seed beds need to be packed very firmly. Many times, good stands are obtained only where the machinery wheels traveled. Plowing, disk- ing, harrowing and packing are usually required. Drilling into weed free small grain stubble in the fall without tillage of any kind often gives very satisfactory results. On non-irrigated land in western Nebraska, seeding in late August or early September on summer tilled land is highly recommended for crested and western wheatgrass. In eastern Nebraska and on irrigated land in western Nebraska alfalfa and bromegrass may be seeded either early in the spring, in late August or in early September. Seeding alfalfa in early June on land plowed in April or early May and worked a number of times before seeding to destroy successive crops of weeds is usually quite successful. If weeds appear, all spring seedings of grasses and legumes should be clipped several times in the first year with the mower set high. The clippings should be left on the ground in order to reduce loss of soil moisture thru evaporation and to increase absorption of rainfall. The weeds should not be permitted to get more than 10" high. The use of a nurse crop is not generally advised, except where an abundance of soil moisture is assured.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Good Permanent Pastures

Carefully grazed vigorous permanent pastures can be expected to give about as much net return per acre as most cultivated crops. Meat and milk production through good pastures saves labor. For tame grass pastures, bromegrass is recommended for eastern Nebraska and crested wheatgrass for western Nebraska. Native grass pastures are at their prime in mid summer. They should not be grazed early in the spring.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Supplemental Pastures

There are few general purpose farms where supplemental pastures will not pay very substantial dividends. Fall rye, used for late fall and early spring pasture, not only saves much valuable grain and roughage, but it increases milk flow, and improves the general health of all classes of animals. At the same time it saves permanent pastures from damage by too late or too early grazing.

An acreage of sudan sufficient to graze all animals during the hottest part of the summer is also advisable on most farms. It gives abundant succulent grazing when permanent tame grass pastures are more or less dormant, and when they may be damaged by heavy grazing.
An Abundance of Roughage

The increased numbers of livestock and the consequent shortage of feed grains make it necessary to give greater attention to the use of roughages. An abundance of sweet sorghum fodder and corn or sorghum silage will help greatly to maintain production of beef and mutton and dairy products, when balanced with a protein supplement. A carry-over of such roughages from one year to the next is good insurance against a feed shortage.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Home Grown Proteins

Good pasture is the best source of protein and vitamins for all classes of livestock during the growing season. Alfalfa is the best source for the winter months. The pasture season may be extended by the use of fall rye.

All growing plants are highest in protein when young and succulent. Small grains cut at the early blossom stage and sudan cut at the early heading stage, make satisfactory protein roughage where sufficient alfalfa hay is not available.

First year sweet clover used as hay or second year sweet clover used as silage provide an excellent source of protein. Sweet clover hay should be fed alternately with other roughages at two week intervals in order to avoid the bleeding disease.

Alfalfa is used with the least waste as silage. Handling the first cutting in this manner eliminates loss from weather damage to which this crop is quite subject. The yield of the fourth cutting may be increased by harvesting the first crop at the early bud stage. (See Circular CC50.)

Soy beans used as silage or hay are an important source of protein.

Rye seeded in August in early corn intended for hogging down may provide much protein if soil moisture conditions are favorable.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Contour Planting

On hill land, corn planted on the contour can be expected to yield more than corn planted up and down the slope. This is especially true in years when rainfall is short. Contouring greatly reduces soil erosion and loss of fertility and water.

Winter wheat and other small grains drilled on the contour can be expected to benefit from moisture saved by the contour rows.
Irrigation Practices

On many irrigated farms corn and some other crops are not irrigated early enough in the season. Once corn shows the effect of dry soil it is permanently damaged and cannot be revived sufficiently to produce a maximum crop. The tasseling and pollination period is a very critical one for corn. It should have an abundance of soil moisture at this time. It is a good rule to irrigate according to the amount of water in the soil rather than by the appearance of the plants. One hot windy day can greatly reduce yields at critical periods. Delay in watering corn until it shows drought damage means very inefficient use of both labor and water. A good rule is to irrigate immediately after the last cultivation, and regularly thereafter as needed, and as determined by tests to a depth of three feet or more.

Land well irrigated in the fall of the year can usually be expected to make good yields of corn or small grain the following year without additional irrigation water. This applies to deep silty, clayey, or very fine sandy soils which have a high water-holding capacity. Very fine sandy or silty loam soils will hold from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches of available water per foot of depth and clayey soils will hold up to 3 inches. Roots of annual crops can make use of this water to a depth of 5 feet or more. Moistening the soil to this depth by fall irrigation is therefore quite practical. On alfalfa land, moistening the sub-soils to a depth of 15 feet or more is practical. Fall irrigation reduces the amount of time that must be spent on irrigation during the growing season when there are many other jobs to do. It is insurance against early drought damage. Additional water may be needed for maximum yields.

The use of lath boxes, car hose, or ciphen tubes for irrigating row crops, saves labor and time at critical periods. The same may be said of borders for irrigating pasture and hay land.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Noxious Weed Control

Beware of noxious weed-infested seed. Whole farms have been covered with bindweed by planting grain infested with seed of this plant. Infested grain fed to livestock also is a source of infestation. All the seeds are not killed by the digestive processes. Eradication of new infestations requires little effort. Eradication of old ones requires much labor and expense.

Eradication of old infestations of bindweed by the use of the “Continuous crop and fallow” method requires a minimum of labor, eliminates reinestation through seedlings, requires the loss of but one crop, and reduces erosion losses. (See Sta. Cir. 50.)

Treat small infested areas with sodium chlorate or atrazine at the rate of 4 to 5 lbs. per square rod. Apply evenly in the dry form in September, October or November. If the soil is not well moistened to a depth of three to four feet, complete eradication cannot be expected from a single treatment. Extend the treatment 10 feet beyond the edges of the patch.
Maintaining Milk Production

An eight point program of dairy production has been adopted nationally. The eight points, with slight modifications for Nebraska conditions, are discussed below:

**Grow more legume hay, pasture, and grain.** Good pasture is the cheapest feed for milk cows. Each day that they mow their own feed on pasture is one less day in the year that they must be fed expensive roughage. The better the pasture and the longer the season, the greater is the production and the profit. Home grown grain, plus any high protein feed and a little bone meal, will make a good mixture for milk cows. Alfalfa is a high protein roughage, but most of the protein is in the leaves. Baling and handling alfalfa shatters leaves and lowers the feeding value compared with alfalfa fed out of the stack. Transportation costs add to the expense of milk and butter production.

**GREATER PRODUCTION THROUGH BETTER PRACTICES**

**Increase quantity and quality of feed.** Quality of alfalfa hay can be improved on most Nebraska farms. (See suggestions on page 5.) Native prairie hay contains more proteins when cut early than when allowed to mature. When good legume hay is not available, high protein roughage can be obtained by cutting small grain when it is in the milk stage. Carrying capacity of sudan pasture can be increased as much as 50% by rotation grazing.

**GREATER PRODUCTION THROUGH BETTER PRACTICES**

**Feed and water to avoid seasonal milk slumps.** In the winter time, give the cows water fresh from the well or warm it with a tank heater. Feed extra hay on stormy days, don’t make the cows rough it in the stalk field. Provide plenty of bedding and shelter from cold wind and wet snow, and the cows will not mind low temperatures. In the summer time, provide cool fresh water all the time, good shade, and plenty of pasture. Haul out the manure and the wet hay and straw. Flies breed in old straw stack butts, rotting hay in the feed rack, and in manure that is over two inches deep.
Feed cows liberally during their dry period. Keep breeding dates and give cows a rest of six to eight weeks between milking periods. Feed plenty of good roughage, and up to five pounds of grain per day if necessary to get them into good condition before freshening. Heavy producing cows will gain from 100 to 200 pounds in weight if well fed while dry. Milk cows need calcium and phosphorus at all times, but especially before freshening. Mix one to two per cent by weight of steamed bone meal in the grain ration, and also put equal parts of salt and bone meal in a box (other than the salt box) where the cows can get it. Since bone meal is hard to get, it should be in a box protected from rain, snow, and wind.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Keep as many cows as feed and labor permit. Increasing cow numbers will not increase production much unless the herds are well fed and cared for. On farms without enough feed and labor, least profitable cows should be marketed. They are generally the old, worn out cows with diseased udders, the shy breeders, and the low producers.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Market whole milk when practicable. Nebraska is primarily a butter producing state and in most areas it is more practical to sell butterfat than to sell whole milk. However, if marketing facilities are available and net returns would be greater from selling whole milk than from selling cream and feeding the skimmilk on the farm, whole milk could be marketed for the duration. This would apply primarily around the Omaha and Lincoln milks heds.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Produce good quality milk, and avoid waste. Since milk cannot be cleaned, dirt must be kept out of it. All utensils should be washed and sterilized after each use. During the spring and early summer, much cream and butter is unfit for human use because it is tainted by weeds, chiefly pennycress, pepper grass, and wild onion. Plant temporary pasture and keep the cows out of the weedy pasture. Mow the weeds if possible, and let the grass recover and crowd out the weeds. Milk cows regularly, and also rapidly. Fast milking will increase both milk production and butterfat test.
Breed and feed for better herd replacements. Even though feed costs are high, heifer calves from the best cows should be fed well now to replace and build up herds in the future. Calf feeding tests at Lincoln show that milk and labor can be saved by feeding a well balanced grain and protein mixture. Heifers can be grown out with good pasture, and with roughage and oats or protein concentrate, bonemeal and salt free choice.

The proper balance of calcium and phosphorus in the ration is essential to regular breeding. In a Texas experiment, heifers on pasture and a bonemeal supplement dropped an 83% calf crop the first year and a 72% calf crop the second year; while heifers on pasture alone dropped 58% and 21% calf crop in the same two years. Calves from the cows getting bonemeal were about 80 pounds heavier at weaning time.

Cows that freshen in the fall will give about 50 pounds more butter-fat per cow per year than those which calve in the spring. Fall freshening cows are dry during the hot, busy season when pastures are short and flies are bad. Calves dropped in the fall get better care and can be grown out to producing cows at less expense than calves that come in the spring.

For additional information about feeding and management, get a copy of Extension Circular 627, Feeding Milk Cows, or Extension Circular 622, Dairy Calf Feeding and Management, from your county extension agent.

For Better Livestock Production

When protein concentrates are limited or when alfalfa supplies are short, small grains like oats, barley and rye can supplement them. Two pounds of oats are comparable to ¾ pound of cottonseed meal per day for wintering calves on prairie hay. Prairie hay cut early in June contains 2 to 4% more protein than hay cut in July.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Added sources of minerals (especially calciums) should be provided hogs when pasture is not available or when proteins of animal origin like tankage are limited. Adding 1 pound of ground limestone and ½ pound of steamed bonemeal to each 100 pounds of mixed feed will usually take care of calcium and phosphorus requirements.

Self-feeding a mixture of 2 parts ground limestone, 2 parts steamed bonemeal, and 1 part salt, by weight, provides a good all around source of calcium and phosphorus for all classes of livestock.
Arranging self-feeders and watering equipment close to the fence saves time when refilling. This saves opening gates and chasing hogs to get to the equipment. Self-feeding will save about $\frac{1}{2}$ day each week with 50 hogs.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Hogging off corn saves labor. Grain wasted is usually offset by the cost of picking and shelling. When planning locations for crops, it pays to arrange for fields close to headquarters to best utilize fencing, shelter, and watering facilities. It is best to fence off the amount the hogs will eat up fairly well in two weeks. Stock pigs and bred gilts can clean up these fields after the fattening hogs use most of the grain. Keeping the fattening hogs in until all the grain is cleaned up may lower their rate and efficiency of gain. Cattle to be fed for market are often turned in cornfields ahead of hogs with good results. Hogging off grain sorghums gives results comparable to corn. Seeding rye during early August in fields to be hogged off will cut protein requirements and increase thrift of hogs.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Breeding hogs and sheep do a good job of cleaning up wasted soybeans after harvesting. Low quality, cracked, or cull soybeans can be fed to livestock as a source of protein. They are best used in the breeding herd. Ewes, lambs, breeding cows and heifers, as well as bred gilts or sows, make more practical use of the beans than other classes of livestock. Sheep use them efficiently without grinding. Cracking them pays for other classes of livestock.

GREATER PRODUCTION THROUGH BETTER PRACTICES

One-third of the cost of producing hogs occurs by the time pigs are weaned. A breeding program which will increase the size of litters will reduce the cost of the weaned pig as well as influence the rate of efficiency of gain from weaning to market. Ear marking pigs at farrowing time permits selecting replacement gilts from the larger more uniform litters. Help is available for sow testing through county agricultural agents and the agricultural extension service.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Green, leafy alfalfa hay is one of the best hogs feeds available. It is essential when green, growing pasture can not be used. Feeding in a rack is satisfactory, but grinding and mixing with grain gives best results. Adding alfalfa to winter rations for bred gilts and sows will help produce larger and stronger litters. Bred gilts or sows can make good use of as much as 20% alfalfa in their ration.
Most hog diseases and pests are “filth-bred.” Hogs can not be immunized against necro, bull nose, worms, anemia, rickets, and similar troubles. Two methods are recommended to avoid these troubles—farrowing pigs in clean, portable houses on clean pasture is the best known practice. When a central, permanent hog lay-out is planned, consideration should be given to concrete floors and pens that can be easily cleaned at frequent intervals to prevent pigs from contact with filth-infected lots. Many men are successfully raising hogs on concrete floors from farrowing to market.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Electric pig brooders are inexpensive and easily made. They can be moved from pen to pen and their use for 3 or 4 days with new-born pigs in cold weather will help raise the litter average.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Wool culling of breeding ewes at shearing time and selecting replacement ewe lambs from the flock will increase the shearing average of the flock. Where this practice has been followed over a period of years, the average weights have been increased by as much as 3 pounds.

GREATER PRODUCTION THROUGH BETTER PRACTICES

Nebraska Farm People:

The 1944 Pasture-Forage-Livestock program, and the suggestions in this circular, are parts of the Nebraska Agricultural Extension Service program, developed to help you produce food and meet the production goals of this year.

Success to you,

W. H. Brokaw

Director Extension Service