

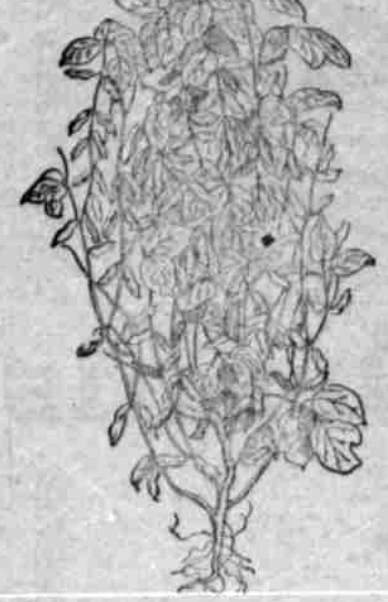
FARM GARDEN

THE SOY BEAN.

No Value to Stock, Hogs and Sheep. How to Plant and Harvest.

Some of the following reasons on account of which the Kansas station recommends the soy bean to farmers of that state will apply in some other sections and may interest those who are considering the question. "Will it pay to raise soy beans?"

The soy bean stands drought as well as Kaffir corn or sorghum. It is not touched by the chinch bug, the grain



THE SOY BEAN.

is a richer feed than linseed meal, and the plant enriches the soil on which it is grown. It will cost the Kansas farmer from 40 to 55 cents per bushel to raise the soy bean, \$13 to \$18 per ton. Pounds for pounds soy beans are worth a little more than oil meal, and feeders are paying \$24 to \$30 a ton for oil meal.

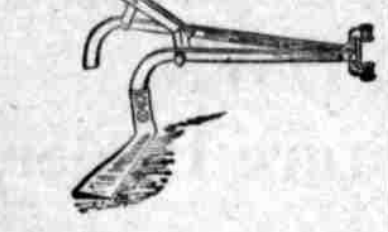
A bountiful supply of protein will greatly increase the milk yield. Soy beans are rich in protein. Three to four pounds of soy beans per day added to the usual dairy ration of hay, fodder, sorghum and corn will increase the winter milk yield of the average Kansas cow from 25 to 100 per cent.

Fed to young pigs, soy beans will make them grow more rapidly and have better health. Fed to fattening hogs, soy beans will induce them to eat more, make more gain for each bushel of feed eaten and shorten the fattening period.

Soy beans fed to young stock will push their growth and "keep the calf fat," which is so necessary to economical feeding. Fed to fattening animals, soy beans will produce the same results as linseed meal at less cost.

Kansas sheep men should raise soy beans and secure the results obtained from linseed meal with a home grown feed at reduced cost.

Soy beans quickly and cheaply increase the yield of other crops. The soy bean should not be planted until the ground becomes warm and the danger of severe frost is over. While the plants may not die if the



SOY BEAN KNIFE OF CULTIVATOR BEANS.

seed is put in earlier, they do not thrive. The beans should be planted in rows 30 to 42 inches apart, with the single beans dropped one to two inches apart in the rows. One-half bushel of seed per acre is required. We prefer surface planting and cultivate the same as corn. Level culture is necessary to harvesting a full crop.

The crop should be harvested when the pods turn brown and before the beans are fully ripe. If left until the beans become thoroughly ripe, the pods will open and the beans will be scattered on the ground.

The only satisfactory way we have found for harvesting the crop is to cut the plants off just below the surface of the ground and rake them into windrows with a horse rake. Where not over ten acres are grown this cutting can be done by running the shovels from a two horse cultivator and bolting to the inner shank of each beam a horizontal knife about 18 inches long, the knife set out from the cultivator and sloping back from point of attachment to point set out to edge. Any blacksmith can make these knives.

Mixing of Sweet and Field Corn. I have been growing sweet corn for 20 years, and when I have planted sweet corn within the range of field corn I have had them more or less mixed. I grow field corn for market, and when the sweet corn came in range with it I would have a small strip of sweet corn, but it would conform to the size of the field corn. I am satisfied that they would mix the first year.

—Charles Black, New Jersey.

BROOM CORN.

Information From One of the Leading Regions of its Culture.

As a result of the high price of broom corn many are seeking the necessary information to enable them to enter upon the industry in sections where it has never yet been tried. These, and perhaps regular growers as well, may find desirable material in the following from the broom corn region of Illinois, presented by Ohio Farmer:

Broom corn was grown as an industry first in New York, and only within the last 25 years has the industry become one of any considerable proportions. The crop has been raised to some extent in Ohio, and also in Missouri, Kansas and Nebraska, but now the bulk of the crop is produced in eastern central Illinois. The rich, heavy soil suitable for the most successful growth of Indian corn is also the soil best adapted to its development.

The ground should be prepared in the same way as for Indian corn, except that it should be made even more smooth and mellow for broom corn, which should be drilled in 15 to 20 inches to the row. Too much care cannot be taken in the selection of the seed. Experience proves that it pays to

buy only what is known to be good seed, properly selected and saved. Put seed in a vessel of water and reject all that float. A difference of one-half in the amount produced has been found to result between the plantings of good and poor seed. The Tennessee Evergreen is the variety most generally grown, and its yield is large and of good quality. The Missouri Evergreen, as grown in Illinois, yields a somewhat finer and more pliable quality of brush which grades better for what is sold as "carpet stock."

The extreme heat of time for planting in this latitude is from the middle of May to the middle of June, the latter part of May and first of June being preferable, dependent, of course, upon the season and the condition of the ground, which is of primary importance. The broom corn may be planted two or three weeks later, when it has been found impracticable to sow the Evergreen at the proper time, but it does not produce the best quality of brush.

The seed is rather slow in sprouting and in its early growth, and the ground should be well harrowed and worked while the plants are small and the weeds kept down until it is well started and indeed until the crop itself so shades the ground as to smother the weeds. The cutting should be done after the heads are fully out, but before the seed fully ripens. If delayed until the seed is ripe, the brush will not keep the good green color which is desired and which is of importance, as the color is considered in grading the stock and consequently affects the price of the marketable article. If left too long before cutting, the brush has a reddish cast.

To raise a crop for a crop of broom corn that will bring substantial returns when marketed the farmer must have special knowledge and training and be provided with the means for removing the seed and putting the brush in the drying sheds the same day it is cut. It must not be left exposed to rain or even dew overnight. Care must be taken in removing the seed that all the seed is taken off and all blades removed from the stalk. The sheds are built much like large, long cooper's sheds, and the brush is laid on shelves made of slats, one above the other, the whole construction being with a view to the most thorough circulation of air through the brush. From ten days to two weeks is required for thorough drying, when it is ready to be baled. Bales are made to contain from 200 to 500 pounds, the average size being 350 pounds. The bales must be made square and smooth.

SEVEN RULES OF IRRIGATION.

1. The more cultivation the less water is required.

2. Irrigation furrows should generally be not over three inches deep.

3. Do not let the water lie around the stems of plants.

4. Do not overwater. Two thorough soakings a month are usually sufficient.

5. Do not water trees or vines when in blossom, nor until the fruit has properly set.

6. Irrigate preferably on cloudy days or at night.

7. Do not apply water when the soil is hot—Oreocides (Cal.) Blade.

NEW STANDARD HAY STACKER.

The stacker shows a standard hay stacker invented by a Colorado man which is very simple in construction, strong and durable and has no castings. It is a combination of base frame, swinging deck and standard. The standard is the most novel feature about this machine. It serves to shorten the draft and elevate the draw rope to the arc of a circle, the derrick being

plotted in the center of gravity, thereby minimizing the power required to elevate. The draft is the same at all points until the hay is delivered. One horse can do the work of two. It is claimed that the new invention will do an equal amount of work in less than one-fourth the time required by the old style derrick. Its capacity is estimated at from 75 to 100 tons a day.

ITS BENEFIT ON FRUIT GARDEN VEGETABLES AND OTHER SMALL CROPS.

A farmer living about 100 miles west of Omaha tells in The Prairie Farmer of his experience after the introduction of the irrigation canal. He says: "Three years' use by the few who would try the water has demonstrated to all that irrigation is a success even when a good average crop can be grown without it. We think it pays to irrigate corn and small grain, but the most gain is undoubtedly made by putting the water on fruits, garden vegetables, potatoes and other small crops."

We are so situated that we are the first ones who can use the water, being about two miles from the head of the ditch. We turned the water on for the first time in May, 1897. We had just set out an orchard of 150 fruit trees, and although we had had several rains, a good many of the trees had not started. We turned on the water and gave them a good soaking, not wetting the ground five or six inches, as an ordinary rain does, but filled the ground full of water, and every tree started and made a growth that first year of from 15 to 28 inches. They have continued to grow and thrive better than any of the hundreds of trees we have set out in former years, although we have quite an orchard of bearing trees.

The way we irrigate trees is to run a furrow along as close to the row as a boy can run without tripping, the trees and run the water along the furrow. This seems to be the best method, for when flooding is practiced unless you are very careful to cultivate as soon as the land is dry enough to work it will take and get so hard it can scarcely be worked at all. We think that with crops where it is practical it is best to use the furrow system, putting the carrying laterals as close together as possible, the rods being as far as you should try to run water down a row, and ten rods is better, for if you try to run it too far you will drown out the upper end and not get enough water on to the lower end to do any good.

We have never been able to get a stand of blue grass on our lawn, but after we got the water we thought we would try again, so we hauled in dirt, leveled it to a perfect grade and built a dike about eight inches high around the outside to hold the water in, and in June it should have been done earlier, but other work crowded it out, we sowed blue grass and white clover. We kept the ground wet the first year, and the second spring we had as good a stand of grass as is often seen.

THE IDEAL CONDITION FOR ALFALFA.

The ideal conditions of soil and moisture for the growth of alfalfa are, according to G. L. Clothier of Kansas, in the valleys of streams where sheet water is obtained at the depth of 20 feet or less and where the soil is a porous, sandy loam with a permeable subsoil. He is convinced, however, that alfalfa will grow and give remunerative returns upon many varieties of soil as any other cultivated plant. It will produce a fair crop upon poor land if not water soaked. Sufficient moisture in the soil is the one condition indispensable to a good crop of alfalfa.

DWARF Essex Rape.

The cut shows a single plant of Dwarf Essex rape as grown by a Montana farmer who has had wonderful

success with it. He regards it as one of the greatest forage plants known. He cut it three times the first season for feed and the second season secured a fine yield of first class seed.

Rape has been widely cultivated in the United States and Canada. Recent reports indicate that its area of usefulness, however, might be made to extend more largely to the west and northwest. By the use of irrigation excellent crops of rape can be grown in the semiarid regions, and it will with-

stand winter droughts.

It is a hardy and strong plant, and food for young lambs at birth in the fall. Rape will endure severe cold weather, and sheep can be turned on it late into the winter when the snow covers it up.

AN IDEAL IN FIELD GROWING AT TONNEN.

The plants are set out from May 25 to the middle of June, choosing dull weather when possible. The plants are taken to the ditch standing in buckets of water and dropped by boys in the ditches. They are drawn out by men following closely after. If the plants are tall and drawn, they are laid nearly flat and the roots and stems covered with earth to within three or four inches of the top. Additional roots are then cut from the buried stem, and the plant is less likely to suffer from dry weather. Rural New Yorker.

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SEED POTATOES.

Run Out and True Stock—Selection of Better Tubers Ripens.

Thousands of planters use the small tubers in the pit or bins after having used the choice tubers for sale or on the table. These small tubers will be used year after year for seed, and yet they will all be good seed (3), and yet these very same people will argue that these small tubers are "just as good as any."

However, I would not always choose the very largest tubers, as these may be rough, coarse or unsightly. But always choose true in type.

A great deal of advantage may be gained by selection in the field before the crop is ripe and while it is yet growing. Selection should be made at this time with respect to growth of vine, health, size and height of vine, appearance, number, color and manner of growth in the hill, whether compact or scattering, as the tubers being not mature will show their characteristics most forcibly at this time. This should be done just before the vine begins to ripen.

The writer very much prefers mature potatoes for seed as compared with immature seed, notwithstanding the great cry for second crop seed to the contrary. Provided this mature seed can be stored in a cool enough place to keep them from starting the last part of growth and at the same time not freeze. However, as so many tubers are prepared to keep mature tubers, here comes in our selection and digging before the crop is ripe. We must take into consideration that the extra early varieties will be more difficult to keep than the late ones if we are to use immature first crop seed, and as we cannot grow second crop in the north this is the best we can do.

Potatoes will run out under certain conditions, the same as other vegetables or fruits, consequently we must be on the lookout for the tuber that has the "run out" marks. A potato that has begun to decline will show it in a difference in the shape and depth of eye, eyes will be more numerous, and the skin will have changed its appearance, as shown in the cut where the upper figure is a tuber from run out stock and the lower is from true stock of the same variety. The foregoing is the advice of a writer in American Gardening.

BROWN ROT OF FRUIT.

Delaware treatment for brown rot of the prune:

Very early in the spring it will be well to spray the trees thoroughly with a solution of copper sulphate, one pound to 25 gallons of water.

When the fruit buds begin to swell, spray either with the acetate of copper solution or the bordeaux mixture.

Just before the first buds open repeat the latter.

When the bloom begins to shed, spray with bordeaux mixture.

In ten days or two weeks repeat the latter.

When fruit begins to color, spray with the copper acetate solution.

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AN AID TO EARLINESS.

One way in which a grower may gain a little advance in earliness of vegetables, especially of heat lovers like beans, cucumbers and that class,

is to build a soil shelter, as shown in the accompanying cut from Vick's. This consists merely of drawing up a ridge of earth to the north or windward side of the row as protection on the one hand from rain winds and on the other to catch the sun heat. The row can be taken up with a small soil care before taken out to have the soil fall over and cover the seed too deeply.

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