

## PASTURING THE SPRING LAMBS.

In these days of high priced meat the farmer with a limited number of lambs should strive to put every pound possible upon them by the most approved feeding, and by excellent pasturing.

As soon as the lambs are weaned and taken from the ewes a great deal of care should be used in providing them with just the grazing which will make them grow fast, and put flesh upon their bones rapidly. The pasture should be judiciously selected. It should be young pasture, preferably rape or clover. The grain ration should be a little more than they had before they were weaned; say about a pound of oats daily.

No corn should be fed to the lambs. To complete the allowance they should be well fed on turnips, cabbage, carrots, mangel wurzels and other succulent root feed.

The allowance of oats may seem small to some feeders but the experience of sheep men has shown that excessive feeding of grain seriously reduces the capacity of the lamb's stomach for all time.

I am a great believer in root crops for lambs and sheep, as well as for all other farm stock, and do not think any farmer will have the best success with his lambs unless he grows a good supply of these crops.

In the summer care of lambs a great deal of thought should also be given to providing them with good shelter from storm, excessive rains and other bad weather.

These should be some roomy, protected place at the barn large enough to accommodate all your lambs, where they may take refuge during severe weather—some place walled in against blowing rains, and yet not too dark.

It should be clean and kept thickly floored with nice dry straw or hay, so the lambs will be comfortable and at ease, no matter how bad the weather.

It should not be near the stalls of the horses and mules, and there should be no loud, harsh noises around the barn while the lambs are bedded down in the straw.

Quietude and peaceful surroundings are as necessary to a growing animal as proper food and shelter—especially so in the case of timid little lambs recently separated from their mothers.

—I. Motes.

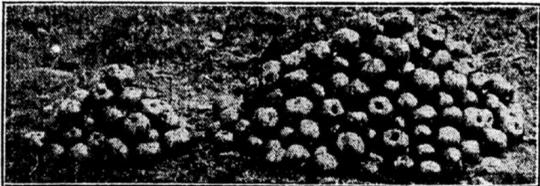
The Walsh brothers, Wisconsin farmers, last fall sold \$40,000 worth of cabbages from 100 acres. The crop brought about \$20 per ton. Such results, however, can only be obtained under the most expert culture and on ground peculiarly adapted to the growth of cabbage.

## TO ELIMINATE DISEASES OF THE APPLE

### Excellent Results from the Use of Various Fungicides, But the Work of Spraying Requires Study and Care.

#### BORDEAUX

No other fungicide is so widely used as Bordeaux and no other has been proven so efficient in controlling diseases. It is prepared by combining solutions of copper sulfate or

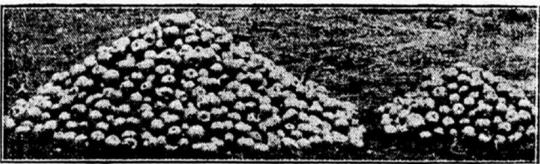


Unsprayed Apples. Scabby Fruit on the Right.

bluestone and lime. The solution most satisfactory for use in the apple orchard consists of:

Copper sulfate, 3 lbs.  
Stone lime, 3 lbs.  
Water, 50 gal.

This is known as the 3-3-50 formula. In a 3-4-50 formula, 3 pounds of copper sulfate and 4 pounds of lime are used to each 50 gallons of water.



Apples Sprayed with Self-Boiled Lime-Sulphur. Scabby Fruit on the Right.

The copper sulfate can be readily dissolved in hot water. If several hours are to intervene before it is needed for use, it is conveniently dissolved by being placed in a sack and suspended in cold water in a barrel or other wooden vessel. As a matter of convenience the number of gallons of water used should be

the same as the number of pounds of copper sulfate to be dissolved.

The lime should be slowly slacked in another vessel. Hot water insures a more complete slacking, but it is not essential. For the sake of con-

venience the lime milk may be diluted so that it makes as many gallons of solution as there were pounds of lime. A gallon of either solution should now contain a pound of the substance dissolved. These strong solutions should not be poured together, but should serve as stock solutions, and if properly protected from evaporation may be kept for several weeks or even the entire season.

It has been customary to advise that Bordeaux should never be used after standing over night, since when the precipitate has once thoroughly settled it can never get into as excellent a state of fineness again.

#### LIME SULPHUR.

The importance of lime-sulphur as an insecticide and its growing favor as a fungicide have caused considerable attention to be given to its preparation in recent years. The following is a very satisfactory formula: 50 pounds best stone lime, 100 pounds sulphur, water enough to make 50 gallons of solution at finish. The quantities may be proportionately reduced as desired.

Place the fresh stone lime in the kettle or other vessel to be used and slake slowly. Put in the sulphur, mixing it thoroughly with the slaked lime. Add enough water to maintain a thin paste. Any lumps of sulphur or lime should be thoroughly broken up. When slaking and mixing are completed the solution may be diluted to 50 gallons. Boil for about one hour, with occasional stirring. If the boiling has been sufficient, the sulphur will have entirely gone into solution, having combined with the lime to form a clear reddish-yellow compound. Enough water

should be added to replace that lost in boiling, bringing the quantity of the solution to 50 gallons again. The solution is now ready to be diluted for use. For summer application on the apple orchard each gallon of this

more water if the mixture becomes too thick to stir. The heat from the slaking lime will boil the mixture violently. A piece of carpet thrown over the top of the barrel helps to keep the heat in and thus to prolong the

action. When the boiling ceases the mixture is ready to dilute. The above quantity should be diluted to 100 gallons for use on apple foliage. If hot water is used in preparing the mixture a greater dilution is necessary.

The self-boiled lime-sulphur seems to offer as little opportunity for spray

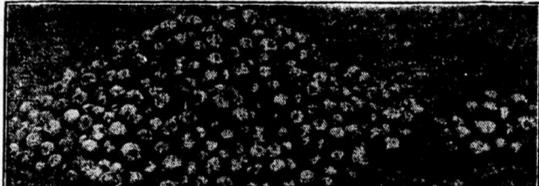
injury as any fungicide. Its value in controlling diseases will depend upon the quality of lime used and the care in making. Lime that is partially air slaked is unfit for use in the preparation of any fungicide, but is especially inefficient in making the self-boiled lime-sulphur.

Place 20 pounds of good stone lime in a barrel and pour 3 or 4 gallons of water (not heated) over it. Add 20 pounds of sulphur and 3 or 4 gallons more of water. Mix the sulphur and slaking lime thoroughly, adding

such circumstances the loss of heat is too great. It may be prepared as follows:

Place 20 pounds of good stone lime in a barrel and pour 3 or 4 gallons of water (not heated) over it. Add 20 pounds of sulphur and 3 or 4 gallons more of water. Mix the sulphur and slaking lime thoroughly, adding

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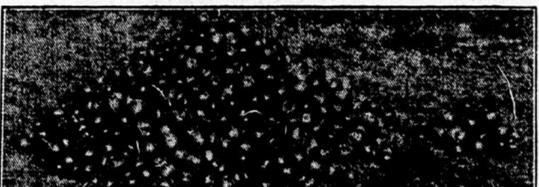


Apples Sprayed with Commercial Lime-Sulphur. Scabby Fruit on the Right.

lime-sulphur should be diluted to 20 or 25 gallons.

#### SELF-BOILED LIME-SULPHUR.

The heat for combining the lime and sulphur is obtained from the slaking lime. The mixture should never be made in small quantities, as under



Apples Sprayed with Bordeaux Mixture. Scabby Fruit on the Right.

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Place 20 pounds of good stone lime in a barrel and pour 3 or 4 gallons of water (not heated) over it. Add 20 pounds of sulphur and 3 or 4 gallons more of water. Mix the sulphur and slaking lime thoroughly, adding

## LATE CABBAGE WITHOUT TRANSPLANTING.

I always plant the seed of my late cabbage where I want plants to stand. I put the land in the best possible condition, mark it off in rows three feet apart and plant four or five seeds in a place where I want the cabbage to grow.

When the plants come up I let them get about as large as they would be if I were going to transplant them, then I pull out all but the strongest one in each bunch.

This allows the plant to grow from the start without any setback and the heads are larger than they would be had the plants been transplanted.

I do not sow the seed until late in June and have raised good cabbages the seed for which was planted after early potatoes had been dug and the land smoothed down.

Potatoes make an excellent first crop where late cabbages are to be grown. Even if the plants are to be transplanted they may be set between the potato rows before the potatoes are dug.

Digging the potatoes works the soil deeply and makes the best possible condition for the growth of the cabbages.—Miller Purvis.

## RAISE YOUR OWN VEGETABLES.

Any backyard 40x50 feet with decent soil can be made to yield enough summer vegetables to supply a family of six.

Thousands of people living in, or near country towns, buy all their vegetables a day or two old, generally wilted and stale, when they could easily raise all they need and have them fresh every day.

Do not be afraid to thin out the plants. It looks like a waste to pull up half the plants when they are growing nicely, but it pays. Transplanting requires the greatest care to make the work successful. Tender plants are easily injured by too much handling, lack of water, or too much hot sun.

Poultry house manure is a wonderful thing for the garden, but it should not be applied in the hill, or it will burn the roots of the plants.

Lima Beans do not require a very rich soil and are easily grown. Plant more of them.

Do not plant beans until all danger of frost is passed, as the young plants are extremely tender.

Taking one year with another, onions will prove a most profitable crop. They are in demand in the markets every month in the year.

L. M. Brune, of Kansas, produces an apple 1 1/2 inches in circumference.

## THE SUGAR-BEET CULTURE

In the United States there are fifty-seven sugar-beet factories working three months each year, grinding, boiling and squeezing the sugar out of nearly forty thousand tons of beets every working day, but this does not near all our wants. These facts ought to be encouraging to beet-growers.

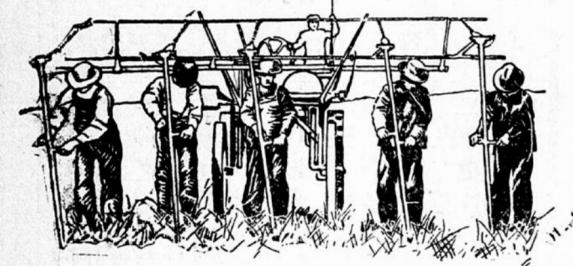
Thorough cultivation is an important factor in producing good sugar beets. It is a common saying among Germans that "the sugar must be hoed into the beet."

In no time of its life should a su-

per acre in this country is about 10 tons, and the percentage of sugar actually extracted and refined does not exceed 12, making the average yield of sugar per acre approximately 2,400 pounds.

Yields of more than 30 tons of beets per acre are sometimes obtained, and yields of more than 20 tons are common.

From 20 to 25 per cent of the sugar in the beets has been reported so frequently that it is safe to assume that an average sugar content of 18



Cultivating Beets With Electrical Hoes.

garbeet be allowed to stop growing for if it once becomes stunted it is doubtful whether it will ever make as good a beet as it would have been under conditions of continuous growth.

Another way the beet has been improved is by increasing its sugar content. This has been done without increasing the size of the beet.

If a largely increased yield of beets is combined with a much higher sugar content it is entirely possible to obtain three times as much sugar per acre as is produced on an average at the present time.

The average yield of beets

### BREEDING FARM ANIMALS.

All breeding animals should have a sound constitution.

A vicious disposition can not be bred out.

Breed only from pure-bred males. We should breed the best, and breed for a definite purpose.

Breed only from mature animals. Breed dairy cows or beef cows—never try a mixture.

Judicious selection should be coupled with good judgment.

Do not breed animals that have an inherited tendency to disease.

Do not mate extremes—have the crosses in harmony.

Avoid inbreeding except to render permanent some desirable quality.

Breed the kind of animals the market demands—not what you like best.

Good care and food, comfort and quietude should be meted out to every animal bearing young.

### RAIL FENCE PHILOSOPHY.

We never can tell what is "just around the corner" so the best thing to do is to keep pushing along. We may find fortune at the turn.

A home without books means discontented boys and girls.

No man can work right unless he lives right and thinks right.



A PRIZE SHORTHORN COW.

## SEVERAL POINTS IN STARTING ALFALFA

By Dr. Cyril G. Hopkins.

Alfalfa is a hard crop to start. It is delicate and tender, and to put alfalfa on ordinary land without any protection or any help, is about like throwing away \$4 an acre. The money is ordinarily wasted if you sow it as you would clover or most other crops.

We want to prepare and enrich the land and give alfalfa the best possible chance to start with. If the land is sandy, put on 20 loads of manure per acre, 30 loads would be better. You are preparing the land, not for one year, but for ten years. You can afford to do almost anything to get it in shape.

The land should be worked until it is free from weeds. You cannot have alfalfa prosper with weeds and foul grass; destroy them before you sow the crop.

If you will have the land free from weeds and the surface soil enriched, so that the alfalfa will live say two years, then it will grow and take care of itself.

Alfalfa gets its roots away down below where any other crop has been. It draws phosphorus and potassium from the deeper soil. It is not necessary to apply phosphorus to alfalfa land. If the soil is acid, put on plenty of ground lime stone and manure. Get five cents worth of blue litmus paper from the drug store, break in two a mass of the moist soil, insert a piece of the litmus paper, and press the soil firmly together again.

After ten or twenty minutes remove the soil and allow the paper to dry. If the dried test paper is pink or red, as compared with the original color the soil is acid and needs the ground limestone, about

one ton per acre, thoroughly mixed with the soil.

If you have clean, rich land, you can seed alfalfa early but from a good many years' experience we advise sowing alfalfa between the middle of July and the middle of August. Have the ground made rich the year before, and well drained. Plow the ground in the spring at the time you would for corn, then disk it or harrow it about every week or ten days until you are satisfied the weeds and foul grass are practically all started and killed. If it takes until the middle of August, why work it until then! When the weeds come, kill them with your harrow.

In a few days there will be another crop of weeds spring up. Go on with your disk and harrow your ground, and let the weeds up as long as they will; kill each crop. You have both killed the weeds and preserved moisture.

Then thoroughly inoculate and ground and sow 20 to 25 pounds of good alfalfa seed and harrow it in well. If the ground has been well manured the year before, I cannot tell you any better way than this, but I don't believe it is necessary to thus give up the use of the land, and I think after you have found that you can grow alfalfa you will follow the plan of taking a field that has been in the winter wheat or clover, plow it immediately, work it a month and sow it about the last of July.

If you have harvested the clover hay crop you can give up the land the last of the year to get the alfalfa started. After the oats crop it is getting too late; follow winter wheat

combination solution should be freely used for all forms of mange or chronic disease of the skin in hogs.

To destroy lice a mixture of equal parts of kerosene and machine oil, or one part of turpentine and two parts of machine oil, should be applied to every part of the hog by means of a rag or swab of cotton wool, or it may be applied along the back, from ears to tail, with a common machine oil can and allowed to ooze down the sides of the hog. Repeat the application in 10 days. As a remedy for lice on black hogs crude petroleum oil is successfully used. It is mixed with an equal amount of warm water and applied with a spray pump or brush. A repetition of the application in 10 to 14 days, eradicates lice with certainty. Irritating applications, such as undiluted kerosene, cannot safely be used on pregnant sows, as abortion may follow their use.

An open concrete bath 8x8 feet containing eight inches of water makes an excellent wallow. Crude oil or coal tar dip poured into the water will keep swine free from lice and their skins in good condition.

is better, and following clover hay is best of all. See that the soil is inoculated so that you will have bacteria there to enable you to get nitrogen from the air. The best method is to use soil that has bacteria in it already. You can get this from an old field where alfalfa has been growing several years, or you can get it from an old patch of sweet clover.

Sow it in at the time you sow the seed. When the soil for inoculation becomes somewhat dry it is easily scattered by hand from the wagon or from a sack which one can carry.

Sometimes it is applied by means of an end-gate seeder or a fertilizer drill. Don't scatter infected soil over the land and let it lie for many hours in the hot sun, for most of the bacteria will be killed. Use a wagon load to the acre if you can get it—the more the better.

Alfalfa is almost always benefited by mowing. Next to that is disking. If it does not do well mow and disk it. We want to get nitrogen into the soil and consequently the soil must be open and porous. That is one reason why we disk alfalfa when it gets a year or so old, after every cutting. Disk it at first if the ground is hard. Set the disk not too slanting, so it won't cut the crowns off, and don't set it so it will cut the roots off. Disk it twice, if it is all right.

You can set the disk pretty straight the first time; the next time set it at a sharper angle.

The two objects are to loosen up the ground so the nitrogen will enter and to root out blue grass and foul weeds. The disking won't kill the deep alfalfa roots.

Material for the brace, if sawed stuff, should be 2x6 inches, if poles are used they should be heavy enough to fill the notches in corner and brace posts. First cut notches for the brace, in the post then set corner or end posts good and deep, tamp well. Brace the set brace posts six feet from end post, cut the braces, two of them, fasten a piece of inch board between at each end temporarily. Nail the braces lightly to hold

solid while wiring them to the posts. Take some of the fence wire and wrap several times around both ends as shown. After the fence is up, put an inch block between each two wires, between the braces.

Asparagus takes the place of new pens in taste and is a sovereign remedy for latent kidney troubles of every kind.

In a village garden the owners must often put up with the inconvenience of growing berries and vegetables on the same little plot.

Lewis Palm, a Wisconsin farmer, recently brought from Sweden 2,000 plants called the Lingon berry, a new plant in this country. They are similar to the native blueberry with a fine flavor, though a little smaller.

Calcutta, India, has an enormous tree which is noted for its wonderful gnarled trunk. Out of this has been constructed a mosque, and is one of the most curious places of worship in the world. The natives who gather in it to say their daily prayers, regard the temple of worship with great reverence.

A good time to kill weeds is the day before you see them. A seed which has just thrown out a sprout is very easy to kill, simply moving it does the trick.

## WHY HIS CROP FAILED

This picture was drawn from an actual photograph. The owner of the farm had no corn crop and wondered why. Apparently the ground had been broken up when it was dry and no attempt had been made to reduce the big lumps and put the soil into good condition for planting.

Of course, soil in this condition would hardly produce an average crop. In planting some of the corn would lodge on top of the clods while others might fall down into the holes between, six inches deeper.

Time spent in putting corn ground



WASTING TIME AND SEED.

### A BRACE THAT BRACES.

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### PICKED UP IN THE ORCHARD.

The National Plant Introduction Garden at Chico, California, is experimenting with the raising of the cork oak, which has not yet been grown commercially in the United States. The cork oak thrives in Spain, where it is the basis of an important industry.

There are now 150,000 acres of planted trees in Central Kansas, where at one time it was thought trees could not be grown.

To rid a young orchard of Bermuda grass, plow as late in the fall as you can turn the sod and leave the roots of the grass to freeze. Plowing and harrowing in the dry, hot season of summer will also destroy it, especially if the roots are exposed to the sun.

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