

FARM OF FORTY ACRES KEEPING BROOD SOW HEALTHY

Equipment, Management and Income of Small Place.

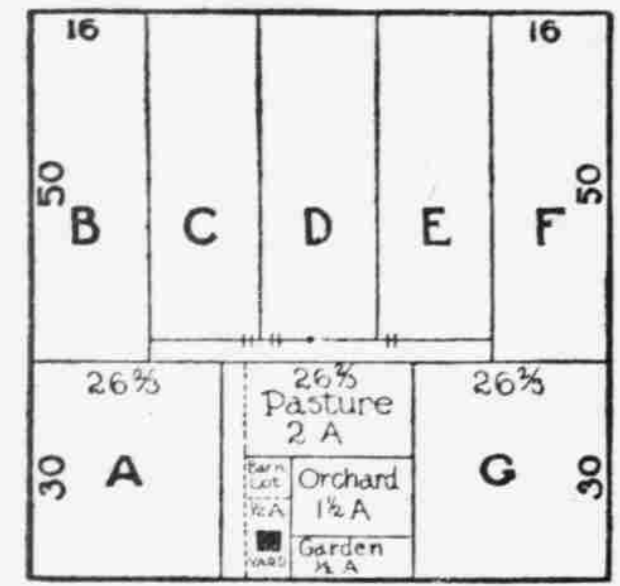
Convenient Scheme for Dividing Land into Five-Acre Tracts—One of These Utilized for Homestead and Garden.

(By W. J. SPILLMAN, Chief of United States Bureau of Farm Management.)

Mr. H. H. Mowry of the office of farm management, has been making a special study of the equipment, management and income of a large number of small fruit and truck farms, many of them run by people who have recently come from the city.

This study has given us somewhat a new point of view. In general these small farmers are not successful. This fact has led us to study the question more closely, and as a result a scheme for the management of a forty-acre farm is outlined below, which seems to be practicable.

Figure 1 shows a convenient scheme for subdividing forty acres to fit it for the cropping system to be outlined below. It will be observed that the forty acres are divided into eight five-acre tracts. One of these is set aside for what may be called the "homestead." These five acres are at the



Forty-acre farm subdivided into eight five-acre tracts. This shows a convenient method of subdivision which gives access to all the fields without wasting much land in roads. Length of lines given in rods.

center on one side, and it is supposed that a public road passes this side of the tract.

Of these five acres half an acre is utilized for the house and yard and the barn and barn lot. This space is ample for what we have in view. One-half acre is devoted to garden, one and one-half acres to orchard and the remaining two acres for a paddock into which to turn the stock for exercise.

By judicious management these two acres can also be made to furnish some pasture and some soiling crops. The other seven five-acre tracts are to be devoted to a seven-year rotation. When this rotation is in full swing the crops on the farm for a given year will be as follows: Field A, potatoes; field B, three acres of cabbage and two acres of onions; field C, corn; field D, cowpeas; field E, corn; field F, clover; field G, clover.

The next year each of these crops would move to another field as follows: The potatoes would go to field G, which was in clover the year before. The cabbage and onions next year would go to field B. The corn on field C would go the next year to field B. Cowpeas in field D would go the next year to field C. The corn in field E would go to D, while E would be sown in clover and F remain in clover.

The next year each crop would move to another field in the same manner, so that each year potatoes are sown after second year clover, cabbage and onions are planted after potatoes, etc.

The potatoes, cabbage and onions on this farm would form the market crops. The two fields of corn, the field of cowpeas and the first year's seeding of clover would furnish twenty acres of forage for the live stock, while the second year clover would furnish pasture for the live stock during the summer.

In each of the two corn fields some winter grain, such as wheat or rye, could be sown early in August at the time when the corn is laid by, that is, when cultivation of the corn ceases. This wheat would furnish fall and winter pasture for the live stock.

In the corn field which is to be followed by clover the wheat would be turned under very early in the spring in preparation for sowing the clover. In the corn field which is to be followed by cowpeas the wheat could remain until the second year clover field is ready to turn stock on, at which time it might be plowed up and sown to cowpeas. We thus have pasture during the whole year in sections where the seasons permit winter pasturing.

In states that are too far north for the cowpeas, soy beans may be substituted for them, and in regions too far north for soy beans, oats can be used on this field, the other crops in the rotation remaining the same. Commercial fertilizers would be required for the potatoes, cabbage and onions.

There is plenty of good literature published by the department of agriculture and by a good many of the state experiment stations relative to the cultivation and fertilization of potatoes, cabbage and onions, and the reader is referred to this literature for further information concerning the growing of these crops.

One fact to which I would call attention is that in the marketing of potatoes, cabbage and onions it is not necessary for the farmer to run to market every day for several weeks, as would be the case with most other kinds of truck crops, especially strawberries and tomatoes.

Preferable to Keep Animal as Near Grass or Vegetable Diet as Possible—Roots Urged.

(By R. G. WEATHERSTONE.)

Grass and vegetable matter are the most natural foods for pigs, although they will eat and can digest a great variety of things. The nearer a sow can be kept to a grass or vegetable diet the healthier she will be, and this system is preferable to dry, rich foods consisting mainly of grain, barley or other meals.

Bran is most useful when grass is not available, but where it is not possible to give sows a grass run, lucerne, tares and other green forage crops can sometimes be substituted. Roots, except that mangels must not be given at all freely as farrowing approaches or the pigs are almost certain to be born dead, are useful and where there is a large garden it will provide a great deal of vegetable stuff that can be advantageously employed for in-pig sows—stuff, too, that would be otherwise wasted. Large quantities of dry grain, and especially corn and barley, must be avoided as too heating; and hotel waste, butcher's offal, slaughter-house refuse—indeed animal matter in any form—are also bad, and may, it is said, be an exciting cause of cannibalism.

When at grass or getting green forage or garden stuff, a few old beans or some dry corn may be given once or twice a week.

The food for the in-pig sow for the last week or so of her time should be as nearly as possible that on which she will be fed for three or four weeks after she is farrowed. A well-known breeder says:

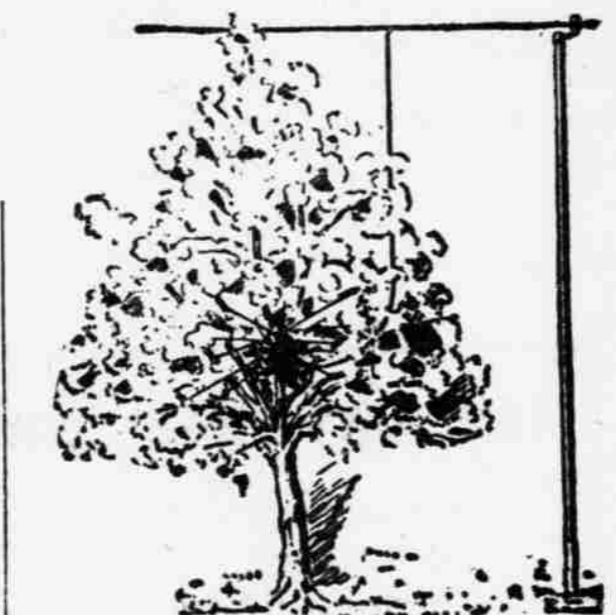
"We have ceased to give barley or other meal to our sucking sows until the pigs are at least a month old. Our newly farrowed sows are fed sharps, or what is locally termed thirds, middlings, etc., and a varying amount of bran, determined by the richness of the sharps, the number of the litter and the age of the sow, also condition." His recommendation for feeding the in-pig sow is: "Vegetable food, with a little dry grass, beans, peas or corn until within a week of farrowing."

PROTECTS BUDS FROM FROST

Colorado Man Concocts Idea of Placing Electric Motor in Tree to Cause Vibration.

A recent invention relates to a new system of motor operated tree vibration for saving buds and blossoms from frost.

The new system aims to create in fruit trees a movement of the sap to the buds and blossoms that tends to vitalize them enough to resist the attacking blight of frost. This movement of the sap might be called a capillary action, and can be likened to the gentle exercising action of an electric vibrator instrument on the



Tree Vibratory in Place.

human system, which stimulates the flowing action of the blood through the veins, especially at the point where the vibrator is applied.

The system of imparting this vibratory action to buds and blossoms has been worked out and patented by Herman L. Darling of Delta, Colo. It comprises the installation in the tree of a small electric motor having a trembling rotary motion and connected by transmitting wires to an electric current.

During the months of April and May when the orchard is subjected to sudden freezes, by means of this system, a vibratory trembling motion is imparted to all limbs of the tree, transmitted to twigs and buds and this motion starts the sap to circulating, invigorates the buds and strengthens them against the killing effects of the frost.

Unfavorable Soils.

Clay soils are unfavorable to vegetation because the soil is too close and adhesive to allow the free passage of air or water to the roots of the plants. It also obstructs the expansion of the fibers of the roots. Sandy soils are unfavorable because they consist of particles that have too little adhesion to each other. They do not retain sufficient moisture for the nourishment of the plants. They allow too much solar heat to pass to the roots. Chalk soils are unfavorable because they do not absorb the solar heat, and are, therefore, cold to the roots of the plants.

Draft Horses Scarce.

A. B. Alford, a transfer man of Philadelphia, states that while statistics show a larger number of horses in the United States than ever before, it is harder to get hold of a good draft animal at a fair price than it was fifteen years ago when he could buy all he wanted for from \$100 to \$125 and today he cannot get horses of the same kind for \$200 or \$250.

SELECTION OF ONIONS

ays Well to Be Careful in Sending to Market.

ould Be Picked When Bulbs Begin to Show Slightly Rounded Bottoms—Demand Is for Freshest and Neatest Appearing.

By LAVILLA WRIGHT MACOMBER.) Having discovered, after several seasons of experience, that large sets yield better than the small ones and occupy no more space, we sort out our small, even sized sets in early spring and sell to the stores, retaining all the medium or large left over onions to set for marketing.

Often grocers who have a large amount of grown onions left over in their cellars are glad to get rid of them for little or nothing and they make the best of sets even when the sprouts are spindled, for they soon straighten out of doors and have nearly a week the start of those not already sprouted.

We set our onions just as soon as the ground can be plowed and roughly leveled, leaving enough space between the closely set rows to cultivate with a weed hoe. A cold snap or light



These onions are not uniform in size but the quality is excellent. Some growers assort their bunches, putting some small ones in with the big fellows for the convenience of the housewife.

snap does not hurt them except to retard growth and we find that the sets must be placed in the ground and pushed along for the market at the earliest possible date to meet the first demands, which, before town gardens begin to bear, are brisk.

Our onions are placed on the market as soon as the bulbs begin to show slightly rounded bottoms and our customers prefer them at that stage rather than when the bottoms are nicely rounded and the onion flavor more pronounced. The extreme tips of the bunch only are clipped to give a neater appearance and they are tied well down onto the tops that the string may not cut into the tender part.

As our orders are usually sent in the day before, the onions are pulled in the evening and left standing bottoms down in tubs of water overnight. The water loosens the rotten outside skins, which may be easily slipped down and the roots clipped (not too closely or the cut ends will curl back) with a stout sharp knife. The soaking overnight is a valuable labor-saver especially when large orders must be delivered for the early morning trade.

Our onions are sent to market in lots of a dozen bunches each, wrapped in plain wrapping paper and tied loosely with stout cord, to prevent dust from settling on them in transit. The yellow Danvers variety is our favorite for green onions, because of their quick and uniform growth, fresh white color and mild flavor.

Unquestionably it pays to be particular when preparing vegetables for market, for those of the freshest and neatest appearance are always sought for while the careless peddler, who brings in half cleaned, uneven bunches sometimes none to fresh and covered with dust, has some to take back.

Destruction of Rats.

There are three methods which may be employed in the destruction of rats: (1) Hunting, (2) trapping, (3) the use of poison or rat virus. There is not much to be said about the first of these methods. Most residents in the country are acquainted with the ratting instinct of terriers, and with the employment of ferrets and a knowledge of the practice can better be obtained by experience than by description. As regard traps, the spring trap which kills the rat at once when the spring is released is the best. Another good kind is the wire trap, on the eel basket principle, which the rat can enter easily when attracted by the bait, but cannot leave.

Harvesting Alfalfa Early.

Some experienced alfalfa growers claim that harvesting before the new shoots for the following crop are sufficiently strong to withstand the sunshine, which is suddenly allowed to come upon them when the former crop is removed, will result in the following crop turning yellow.

Chance for Better Farmers.

There is a chance for us all to be better farmers than we are. The need is great, and the road is not blocked with traffic. It does not as a rule go that way.

LITTLE LIFTS FOR THE FARM

Fire-Proof Cement for Roof to Stop Leaks Cannot Be Beat—Cheap Paint for Rough Work.

For a fire proof cement for roofs mix fire clay two parts, plumbago one part, steel shavings one part, borax one part, and salt one-half part. Mix to a thick paste and use at once. For stopping leaks in any kind of a roof, except shingles, it can't be beat.

Many times the strong sun shining on a window calls for a curtain or some other shade, and in most cases there are objections to a curtain. The glass may be easily frosted by dissolving Epsom salts in beer and painting the glass with the mixture, using an ordinary paint brush. When dry, you will have the finest artificial frosting known.

To make a cheap paint for rough woodwork, take six pounds of melted pitch, one pound of pure linseed oil and one pound of yellow ochre. Mix, and if too thick add more oil. This is a very durable paint for any purpose.

To make paint for brick walls add a good lime whitewash, a small amount of sulphate of zinc and any coloring matter desired, such as red lead, yellow ochre, etc., far superior to oil paint for brick walls.

GROW VETCH IN WISCONSIN

Farmer Gives Interesting Experiment Made With Crop Planted Together With Clover.

(By W. A. FARRINGTON, Wisconsin.) Having experienced a little difficulty in keeping a small tract of rather inaccessible land in the required state of fertility, we tried vetch, both spring and winter varieties. The seedsman instructed us to grow it with a nurse crop of oats.

We were told that vetch would not thrive in our Wisconsin latitudes, and for a time we were willing to believe it. The vetch we started with the oats did not get a start at all, although the season was comparatively moist.

However, one despaired acre, an experiment on our own part, which we had planted to a mixture of clover and winter vetch, finally rounded in shape. It had lingered long, when suddenly both clover and vetch took a notion to grow.

In August there was a magnificent stand of forage, all of which was plowed under. Thus, although we lost a season's crop from that acre, the improvement of tilth and fertility resulting amply repaid the loss. Next spring we will put in more vetch and clover.

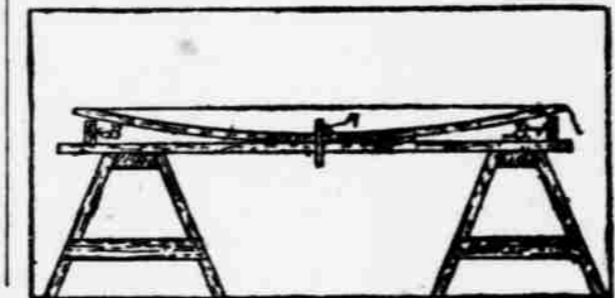
TO RE-COVER SCREEN DOORS

Carpenter Has Method That Is Not Only Easy, but Very Quick—Stretches Wire Tight.

The man in the country finds it is a rather difficult job to repair screen doors and windows, as the wire is very hard to stretch tight. The carpenter, however, has a method that is not only easy, but very quick as well, and it never fails to stretch the wire tight.

The illustration shows two carpenters' horses, which of course are not absolutely necessary, as the work may be done on a work bench, table, or even on the floor.

Two 2-inch or 3-inch pieces of board are set on edge as shown at BB. On



Stretching the Wire.

this the screen door is placed. It is then sprung down in the center and held in place with a wooden clamp, slipped over the door, and the table top or board.

The wire cloth is tacked to one end of the door, and pulled as tight as possible with the hands, and tacked to the opposite end, the clamp A is then removed, and the door allowed to spring back to its normal shape, which will stretch the wire cloth tight.

A little experimenting will soon tell how wide the pieces BB should be to properly stretch the wire. For the screens over the windows they will of course not be so wide. This method is easy.

Planting for Future Seed.

Few farmers feel that they have time to give to an elaborate corn-breeding plot, but none of them is so busy that he can't take time to select the best hundred ears in his supply of seed, and, after testing to be sure of its vitality, plant in a plot on the south or west sides of his main field.

Doing this will not only simplify the matter of selecting the seed ears next fall, but the location of the best and most thrifty type of corn in the position mentioned will mean that much of the remainder of the field will be fertilized by the tassels on these better stalks.

Poor Seed Unprofitable.

The loss from planting neglected seed corn reduces or destroys the profit on the corn crop of each individual farmer, and in the aggregate is an annual loss to the country of many millions of dollars.

Beet Crop Shortage.

A shortage of 27 per cent is reported in the European beet sugar crop. German authority says the yield will only show six million tons.

ROCKY ROAD FOR BOY

Country Lad Has Easier Time Than City Youth.

Where There is Chance for Education and Good Home is Provided, Youngster From Rural Districts Has Big Advantage.

Do not ever believe, you boys of the country, that the city boy has all of the good times going. In many ways he has a rocky road to travel.

One of the big men of the Chicago university, who makes a study of the condition of boys in the cities, says the country boy, if he has the chance of an education and lives in a good home, has a deal better time than the fat-bred, steam-heated city boy.

The city boy has no opportunity to bring in the wood, milk the cows, gather nuts or go out into the woods, and so has no part in the home work.

The city is mean to him. He seldom puts his foot on the ground because it is all covered up with stones and cement.

He has no neighbors, for people move every year, and sometimes of tenses, so what's the use of getting acquainted. There are no real homes in flats—not like the homes of the



Pals at Feeding Time.

country, where people live in one place for years and grow up with their relatives and neighbors around them and where the ties of friendship are strong and satisfying.

If the city boy lets out a yell or plays ball in the streets or swipes an apple, the police are down on him in a moment.

The country boy can whoop, whistle and sing as much as he pleases and if occasionally he strays into a neighbor's orchard and comes out in a fit of absentmindedness with a melon under his arm, or a dozen apples inside his shirt, he is not arrested! Generally he is invited to help himself and come again if the neighbor sees him.

In the city everybody is against the boy. The people upstairs complain to the janitor that he makes too much noise; he is not allowed to sit on the doorstep, and so he drifts into the crowds of bad boys around the corner, who are bad because they are not allowed to do things that every healthy, well-ordered boy wants to do.

Quack Grass.

As a usual thing, quack grass does not mature its seed in hay or in winter grain crops, since they are cut too early, but in hay that is left standing for seed and in spring grains it does become mature and is carried from field to field or from farm to farm by the threshing machine, in manure, in hay and straw or in seed grain or grass seed.

The first thing to do is to learn to know quack grass seed and then refuse absolutely to use any grain for seed that contains it. As soon as the fall work is well out of the way get the fanning mill in working order and clean the seed grain so well that there is no weed seed of any kind in it. With oats and barley the work must be done particularly well, since quack seed resembles these to a certain extent, although it is much smaller. Buy your seed, grain and grass seed early and be absolutely sure that you get no quack seed in either.

Necessity for Testing Seed.

Good seed corn is the key to getting good stands of corn. A good stand of corn is necessary to secure good yields. Owing to the wet fall of 1911 there is now much doubtful seed corn in the country.

One cannot afford to plant corn any year, much less this year, without testing. The single-ear method of testing seed corn is the only practical method.

How to Kill Grasshoppers.

Since a live grasshopper will eat a dead grasshopper a Missouri farmer mixed Paris green and bran together and let a grasshopper eat it. It died, and 20 ate it up and they died; 400 ate these 20 and they died; 8,000 ate those 400 and they died; 160,000 ate those 8,000 and they died and the farmer was troubled no more!

"Freckles" Coming to the Academy For Matinee and Night, March 15.

A comparison of this wonderful nature story is impossible, for there has been nothing produced in all the history of the American stage just like "Freckles." It is distinctive, original, but of such absorbing interest that it is not difficult to know why the millions of readers have de-



lighted in the story, nor why it has touched the palate of modern fiction readers. Neil Twomey has stuck faithfully to the text of Mrs. Porter's story; every character has been brought out in bold relief in the play, and where the picture was in the mind's eye of the reader, it will now be in the actual line of vision. The great "Lumberlost Swamp," in which "Freckles" takes hold of life, and forms his nature friendships, is realistically shown. It is a beautiful stage picture with the thickness of the swamp forming a dark massive background below, while above tower gigantic trees. A knowledge of perfect stage lighting makes this effect possible.

Wilson Will Resign March 1.

Trenton, N. J., Feb. 25.—Woodrow Wilson resigned the Governorship of New Jersey at 1 o'clock today, to take effect at noon on Saturday, March 1. The Governor wrote his resignation in his own hand and sent it by Secretary Tumulty to David S. Crater, Secretary of State. At the same time he sent a message to both Houses of the Legislature notifying them of his act.

Makes the Nation Gasp.

The awful list of injuries on a Fourth of July staggers humanity. Set over against it, however, is the wonderful healing, by Bucklen's Arnica Salve, of thousands who suffered from burns, cuts, bruises, bullet wounds or explosions. It's the quick healer of boils, ulcers, eczema, sore lips or piles. Twenty-five cents at all druggists.

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