

THE FARM.

fectant. Then the pigs should be sprinkled with a solution that will be sure to destroy the lice. The animals should be taken in hand, and, with a good, stiff hair brush, the lice-killer scrubbed into the skin around the ears and neck, down the side, in the fore flank and all around the back. This will not only kill the lice on the pigs, but will destroy the nits. If by any chance the lice appear again, they should not be neglected, but the same operation repeated until the herd is entirely free from lice. Pigs cannot be expected to be healthy, thrifty and profitable meat producers if tormented with parasites.

There is a diversity of opinion among breeders as to the propriety of promoting rapid growth of pigs while young. Breeders of pure-bred hogs contend that they want to make the growth slowly while young, in order to retain great strength and vigor necessary for a long life, but with the average farmer it is different. To him it is a matter of importance that he pay attention to the promotion of growth early in life. There are several reasons why he should do so. In the first place, it costs less to increase the weight of the animal while young, than it does later in life. By feeding well-balanced rations, containing a large percentage of protein, the bones and muscles can be grown rapidly, and the strength and vigor of the vital organs retained. In the second place, the quality of the meat from a pig that grows rapidly from the time of birth to market weights, is superior to that produced on the slow-growing pig. The fact should be kept in mind that the muscle and bone on all animals grow during the growing period, and if one desires to raise stock with good bone and muscle, they must be well fed while young. In the third place, it is more desirable to hasten the growth of the pigs to market weights, because the returns come in more frequently. At the age of six or eight months, pigs well handled and kept growing should have reached the popular market weight of 250 to 380 pounds each, and be of quality equal to the best that can be produced, and have cost less money than by the slow-feeding process.

The fact that it requires a certain percentage of the feed to maintain the animal should be kept in mind. If only as much feed as is necessary to maintain the life of the animal is given, then that feed is wasted, but if fed more and in a manner to make the largest possible gains, then there are the greatest possibilities for profit. These facts should be kept in mind from the beginning to the end of the term in raising, fattening and marketing hogs.

Johnson Co., Ill.

W. H. UNDERWOOD.

[Note.—The popular weight in the United States is higher than here where the bacon hog of 160 to 200 pounds is favored. While this article is written from the United States feeders' viewpoint, it is none the less interesting, and most of what is said is applicable to conditions in this country.—Editor.]

Carbolic Acid for Abortion.

The internal use of carbolic acid for the prevention of contagious abortion in cattle, with some notes on the relation of granular vaginitis to abortion, is the subject of a Montana State bulletin by W. J. Taylor. The experiments reported, which were carried on in three herds, have led the author to the following conclusions:

"Carbolic acid, fed in solution or injected hypodermically, seems to be a specific against contagious abortion. Cows, as a rule, will eat with apparent relish as much as 750 cc. of a 4 per cent solution of carbolic acid in feed daily. The hypodermic injection as a treatment in an affected herd involves less labor than feeding. In cases of impending abortion carbolic acid can be injected in sufficient quantity to cause staggering gait and dilation of the pupil of the eye (when it should be withheld for from 10 to 15 hours and repeated) with no apparent unsatisfactory after effects. All males used for breeding purposes should be treated as indicated. Contagious abortion and granular vaginitis may be transmitted through the medium of the male, unless proper precautions are observed. Not all cows showing granular vaginitis abort. Heifers pregnant for the first time are more liable to abort than during subsequent periods of gestation, and should be carefully watched and vigorously treated if abortion exists in the herd."

Did you ever pump water into a large trough from which ten or twelve large cows or steers were drinking at a time, and as many more impatiently waiting their turn at the trough? The cattle drink the water as fast as it is produced, and remain at it until you think you have nearly dried the well. Anyone who has had this experience understands just how thirsty cattle get at this season, and how important it is that they have access to water at all times. A day or two without water gives them a set back, and is cruel in the heat of summer.

How Fast Does Corn Grow?

It is very interesting to take note of the growth of a corn crop from week to week and from month to month. There are times when it seems to be fairly jumping. After a warm soil-soaking July rain the growth of a good stalk reaching towards the tasselling stage is almost miraculous. In times past we have measured selected hills from day to day, and the number of inches of growth made in a day was so astonishing that we refuse to trust our memory to quote the figures. Any corn grower may easily do some measuring for himself, however, and we would commend the practice for the eye-opening interest it arouses. Upon this point we quote some very conservative figures used by Joe Wing, in the Breeders' Gazette. The variety was Wisconsin No. 7, and it was grown on a clay-loam field in Southern Wisconsin during the season of 1912. The corn was planted the latter part of May, and the accompanying table shows the growth made during each of the periods indicated, as well as the average daily growth.

Date.	Height of corn.	Amount growth during period.	Average daily growth during period.
July 2	1ft. 2in.	1ft. 2in.	0.4in. (about)
July 12	2ft. 6in.	1ft. 4in.	1.6in.
July 22	3ft. 6in.	1ft. 0in.	1.2in.
Aug. 2	5ft. 4in.	1ft. 10in.	2.0in.
Aug. 12	7ft. 4in.	2ft. 0in.	2.4in.
Aug. 20	8ft. 2in.	0ft. 10in.	1.2in.

The table indicates, as most of us would expect, that the plant makes its greatest growth during the latter part of July and the first part of August. From July 22 till August 12th it grew on an average 2.2 inches per day, and there must have been many days when the average was considerably exceeded, and as the total height attained was only 8 feet 2 inches, it is not so hard to credit stories of corn stalks of big dent varieties having grown five or six inches in twenty-four hours. But measure a hill or two for yourself this summer and see what you may see. It will help to impress the need for continued shallow cultivation to conserve all possible moisture to supply the large water needs of the crop while making its wonderful growth.

Using Barnyard Manure.

An Ohio State Experiment Station bulletin by J. W. Ames and E. W. Gaither contains information derived from experiments at the station and compiled from other sources on the production composition, conservation, reinforcement, and value of barnyard manure. It shows that the liquid excrement contains nearly half the nitrogen and potash voided by farm animals; "when steers are fed on cement floors the value of the manure produced is more than \$4 per year greater for each animal than when fed on earth floors; the least amount of nitrogen will be lost from stored manure if animals are kept on it, or it is kept in a moist, well-packed condition; open barnyard manure is about one-half as valuable as stall manure; stall manure appears to be more effective in rendering phosphorus available from floats and other materials carrying phosphorus in slightly available form than yard manure; the addition of phosphatic materials to manure greatly increases its fertilizing value and pays a handsome return for the trouble, for this purpose phosphatic materials [proving] more valuable on most Ohio soils than gypsum or kainit; manure used in connection with continuous cropping will not maintain the maximum yield, but when used in connection with crop rotation it increases the yield of all crops grown in that rotation; [and] manure used in conjunc-

tion with a complete fertilizer high in phosphorus will give better returns than when either is used alone."

Sowing Clover after Grain Harvest.

During the last three seasons the Soils and Crops Department of Purdue Experiment Station has been conducting experiments to determine the practicability of sowing clover alone at different times during the growing season from April to September, making a seeding every three or four weeks. The degree of success has varied considerably, due to the extreme weather conditions, but the midsummer seedings were invariably more satisfactory than those made earlier or later. The success of the earlier seedings has been menaced most by beating rains shortly after seeding, followed by heat and resulting in crusting of the ground. Weeds, which spring up very rapidly at that time, have also given trouble. The late August and September seedings have not developed sufficiently to withstand the winter, and, in this latitude, are not to be recommended at all. So far as these experiments have gone, they indicate that seedings of this kind made in July and early August are most likely to succeed, and, on the average, one may expect to get satisfactory results from seeding clovers at any time when a good seed bed can be prepared after wheat or oats harvest, and before the middle of August.

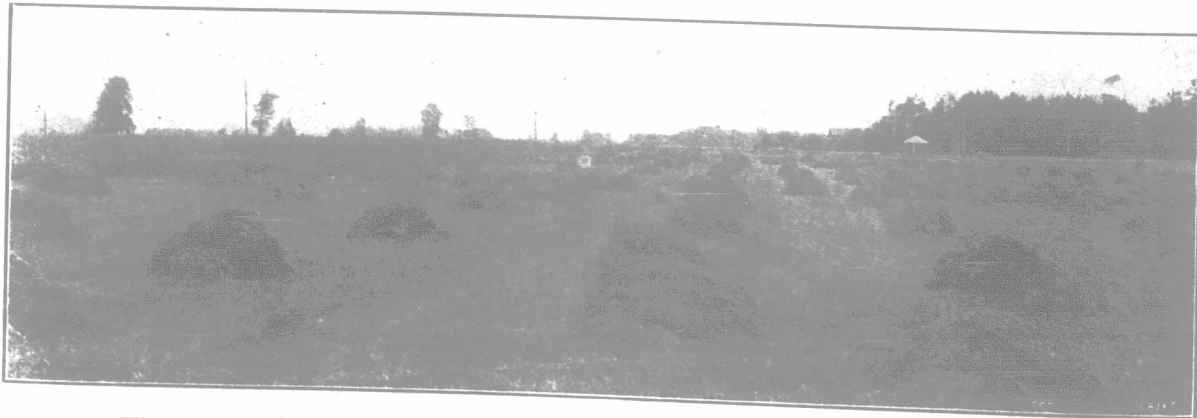
Wheat and oats-stubble ground should be thoroughly double-disked and harrowed as soon after harvest as the shocks can be removed, and the ground is moist enough to work, says Prof. A. T. Wiancko in a recent press bulletin on the subject. The opportunity must be watched for and usually there will be several chances, as there is very seldom a season when there is not enough rain to soften the stubble ground some time in July or early August. The earlier the first working is given the ground the better, on account of the destruction of weeds and the preservation of moisture. The disking will chop up the stubble, weeds and trash, and mix them with the surface soil, and, if properly done, there will be a fine seed-bed for the clover which should then be sown at a favorable opportunity when the soil is moist and after, rather than before a rain to avoid crusting of the surface. The seed may be broadcasted and lightly harrowed in, or it may be drilled shallow through the grain tubes of a regular seed drill. The special clover and grass seed drill will, of course, be excellent for such work.

From experience on the Station plots, with summer moisture conditions less favorable than on the average farm, the authorities feel confident that the chances of successfully seeding clover alone in midsummer are much better than they are with the usual methods of spring seeding.

Sweet Clover's Soil Preference.

With reference to sweet clover, which one or two correspondents have recommended highly as a crop, and which Prof. Shaw has given qualified endorsement as a means of soil improvement, it may be of value to some readers to know the experience of E. J. Zavitz, Provincial Forester, who has tried it on some of the light sand in the section of Norfolk County where his forest-tree nurseries are situated. On such land he has found it difficult to obtain a satisfactory catch of the seed, although it grows rankly on hard-clay hills, and on the edges of roadsides. It is somewhat similar in this respect to alfalfa which endures longest on hard clay, providing it is sufficiently well drained.

Many Indiana farmers are facing a clover failure, especially in the Central and Southern parts of the State, where extreme drouth destroyed every vestige of young clover.



Three Acres of Alfalfa (Second Year of Cropping) in Coil at Weldwood, 1913. This strip yielded a trifle over six tons of fresh-cured hay, mostly alfalfa, but with some blue grass. The whole field of ten acres yielded 18 loads of mixed alfalfa and blue grass. The small building in background is a waiting-room along the electric railway.