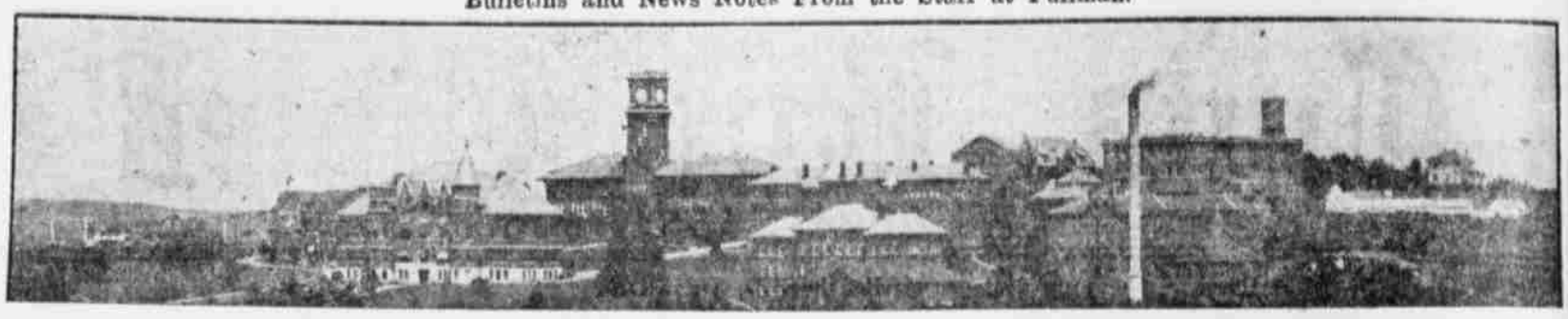
The Agricultural College Is a Friend to the Farmer

Bulletins and News Notes From the Staff at Pullman.



VIEW OF WASHINGTON AGRICULTURAL COLLEGE AT PULLMAN, WASH. ITS SOLE AIM IS TO AID AGRICULTURISTS.

Using Small Potatoes as Food for Poultry

EACH season when the potato crop harvested there are more or less of the tubers that are comparatively worthless either for market or table use on account of their small size. In recent years such potatoes have been used to some extent as food for various kinds of livestock. In some cases where potatoes have been used as a poultry food the results have not been entirely satisfactory. This has been largely due to the fact that the composition of the potato and its nutritive value were not considered.

In compounding a poultry ration, it should be remembered that the feeding standard for laying hens is about 1:4.6. In other words the hen requires 1 part of protein to 4.6 parts of carbohydrates to mtaintain her body and produce eggs. If the ratio of the carbohydrates is too large in proportion to the protein, the hen becomes over fat and egg production is stopped. Such a condition often results in liver trouble, indigestion and death.

The nutritive ratio of potatoes is 1:12. It is, therefore, necessary in using potatoes as a part of the ration to use some other ingredients that are rich in protein. For this purpose wheat bran and alfalfa meal have been found very satisfactory. In order to mix potatoes with other foods it is necessary that they be cooked. During the Winter months the cooking of potatoes for an ordinary flock of hens can be done with very little expense since fires are required for other purposes. The potatoes should be thoroughly boiled without removing the skins and used in the following proportions:

Five pounds mashed potatoes, four pounds wheat bran, half pound alfalfa meal.

If alfalfa meal is not available, equal parts by weight of mashed potato and wheat bran may be used. Some liquid will be required to make this into a crumbly mash. Skim milk or water may be used for this purpose. Such a moist mash is not a complete ration and should be used in connection with a scratching food and dry mash. We prefer to feed this moist mash about noon each day. The hens are allowed all they will eat in 10 minutes.

The common symptoms of digestive disorders caused by overfeeding of potatoes or other starchy foods are looseness of the bowels and dark-colored comb and wattles. If one or two birds develop such symptoms, they may be given a teaspoonful of castor oil twice each day until such symptoms disappear. If a large number of fowls require treatment they may be given one-half teaspoon of Epsom salts per bird once each week until their condition is normal. The salts should be dissolved in a small amount of warm water and the water used in the mash. The mash should also be seasoned with a small amount of common salt.

Feeding potatoes as outlined above not only adds variety to the ration, but it supplies carbohydrates at a very small cost and is the means of a considerable saving of grain.—V. R. McBride.

Leaving bundles on the ground a couple of days makes the hard work of shocking corn lighter if it don't rain, but shocking wet corn is the hardest of all and the worst part of it is that shocked when it is wet it is almost sure to mold in the shock.

A page of interesting items from the Oregon Agricultural College at Corvallis will alternate in the farm weekly with a page of news notes from the Washington State College at Pullman. This will afford an interchange of views from the two big agricultural colleges of the Northwest that should prove of benefit to the reader, for the institutions deal with similar problems.

Two Hives to Control Swarming

IT is bee nature to swarm, and up to the present time no plan of management has been discovered that will at all times prevent it without too much labor and a decrease of honey yield, so it is not practical. We may, however, check or entirely prevent swarming in ordinary seasons by using two hives to each colony early in the season while the queen mother is in full vigor and brood rearing is on rush orders. By this plan of management we may increase our bees by dividing or prevent any increase of colonies.

We may be working for comb or extracted honey. The Spring management will be the same up to the time of the surplus honey flow. This plan calls for at least one surplus hive for each colony and should contain ready built combs saved over from last season. In April or May when the bees are strong and gathering freely, we may give a second hive. This is best placed below the old brood chamber where no excluder is used. Move the old hive to one side, put a bottom board on its place and on this your new hive. Remove two of its comb frames. Open old hive and draw from it two of outside combs containing stores or if some brood, all the better, and place these in the middle of the new hive.

Now spread the brood in the old hive so as to get the two empty combs in the middle of the brood nest and place this old hive on top of the new ones. When the surplus honey flow comes about a month later, we may find the queen has established a brood nest in the lower hive, so we now arrange for the future division. Have your smoker going well and blow three or four full blasts over and between the frames of the top hive. Pause long enough to count 60, then repeat. This is done so as to be sure the queen goes below. Have your prepared comb-honey super ready.

Controlling Swarming.

Lift the top hive off and set it down across an open top box. It is usually best to raise a comb from middle of lower hive so as to be sure it contains brood. Now place your comb-honey super on this hive; then the old hive on top of all, there to remain 10 days. This is done to give time for all the brood in this hive to be sealed and queen cells ready to batch two or three days later.

This is done to secure an increase and to get work started in the first super before making the division. Now move the old hive which is now on top to a stand of its own. About 10 days later its young queen should have mated and begin laying so, if colony is working strong, this hive now may be given a surplus super. The hive at the old stand should be looked after. If it is being crowded for super room, additional supers may be added. Remove them as fast as they are filled and finished. No more than two supers should be on hive at any time.

By using this double deck hive we have accomplished two very important points. First, we have secured all the surplus honey in the top hive so it may be taken away. If left in the brood nest this surplus honey might cause swarming or be a hindrance to the queen all Summer long. Second, we have secured eight frames full of brood to the top bars, on which to place the supers with not a particle of sealed honey below and no empty cells in which to store it and so when the flow is on the bees must store the honey above.

Super Room.

Up to this time we have controlled swarming and doubled the number of colonies without having a single natural swarm and now the bees are rushing work in the supers. We must, therefore, not forget to keep them supplied with all the super room they can use, and as fast as a super is completed remove it to a warm, dry place, where it can be kept secure against robber bees. As soon as possible, clean and grade the honey and put it on the market because the first honey is very apt to granulate in a short time. In grading you will always find more or less unfinished sections on the outside. These are called gobacks and should be put in supers and return to be finished. Some of this class will be left at the close of the season and are called holdovers. They should be kept for baits to start Spring work in first supers.

If we want no increase of bees, we may control the bees in this respect in several different ways. Instead of setting the top hive for division, we may look over its frames, find and remove all queen cells. It may then remain on top of the supers for about 15 days to allow all the brood to hatch out. It will then contain about 40 pounds of honey. This may then be set away for extracting or returned to one of the lighter hives to remain as a double deck hive until the surplus honey flow is on the next season. Remember to keep additional supers added below this hive. It will require about three to six according to the season. The second one may be added at the time the queen cells are cut out and a third a week later.

Other Plans.

Another plan is to set the top hive off beside of the old hive as a new swarm. Ten days later all of its bees may be shaken from the combs in front of the new hive, one at a time, and the hive then set away or it may be placed on a light swarm at once.

For extracted honey the plan is the same except a third hive of combs is added in place of supers, by raising up a comb or two of the brood to the third hive, you make a gain of 15 or 20 pounds of honey for your trouble. If you prefer, you may raise up the second hive and place the third below it. This practice may be continued to the end of the flow, or as soon as you find the honey is mostly sealed; then you can extract the honey and return the empty combs to be refilled.

The honey is placed in a settling tank in a warm room for a few days; then drawn off from the bottom into glass jars and given a hot bath for a few hours to clear it. It is then ready for market. The temperature of this bath should not go above 140 degrees F. If a settling tank is not used, it will be best to strain the honey through an open cheese cloth or a fine sieve so as to get rid of the wax particles and pollen. The yield of extracted honey should be from two to three times as great as of comb honey as there are no new combs to be built and no swarming. If more bees are wanted, the strong hives may be divided.

We have not discussed the use of queen excluders. A beginner seldom has them and the plan outlined above gets as good returns. The greatest benefit from the use of queen excluders is obtained by the queen breeder. —J. W. Ware, Apiarian, Puyallup.

A Supplication.

Ah Life, thou throbbing, pulsing mystery, so full of joy and pain,
May I not at thy fount assuage my thirst and yet be sane?
May I not place thy golden chalice to my lips and drink,
Without intoxication beckoning me beyond the brink?
Must I contented be to see the years go slowly by,
Standing aside while others pass? Then harken to the cry
That rises with the morn and surges through my heart till late,
For strength, dear God, to let the world pass by and stand and wait.
—Olivia I. Fair, in L. A. Times.

Offer Seed Corn to Northwest Farmers

THE Division of Farm Crops at the State Experiment Station at Pullman is offering to send out seed corn to persons who want to get a start with corn from seed grown in the Northwest. There will be no charges except for postage. The amount sent out to each person (five pounds) will be sufficient to plant over one-half acre. Persons making request for seed are expected to give the crop the best attention and make a report of its success.

The two varieties, Windus white dent and Thayers yellow dent, have been grown successfully at the State College for a number of years. They have also been grown to a limited extent by a large number of farmers. Most of these farmers, telling of their results, have given favorable reports. Some, however, have given adverse reports. These two varieties of corn are being distributed to determine the various localities in which they are successful. The white corn is larger than the yellow and is suited for a longer season. Where the seasons are likely to be short or unfavorable, the yellow corn is more likely to be successful. Requests for corn will be filled in the order in which they are received until the supply is exhausted.

The department is also offering a limited amount of field peas for distribution. Field pea orders will be received in amounts up to 25 bushels for one person. A price of 4 cents per pound f.o.b. Pullman, Wash., will be charged.

A limited amount of Swedish Select oats will be distributed at a charge of 2 cents per pound.

Seeds of other farm crops will be distributed in small quantities, under the same conditions as those given for corn, to parties desiring to make a trial test in localities where the value of such crops is not understood.

Parties interested should address Professor E. G. Schafer, State Experiment Station.

Who Has Grain Seed for Sale?

Anyone having good seed for sale should write to the Division of Farm Crops at the Washington State Experiment Station, Pullman, Washington, stating the kind of seed, name of variety, amount and price, and whether or not the seed was grown under irrigation.

Many inquiries are coming to the Department of Agriculture of the State College asking where various kinds of good seed grain may be obtained. A list of parties offering seed for sale will be prepared in order to supply this information.

In case it is desired to list alfalfa, clover and the smaller kinds of seeds, a small sample should be sent in so that a germination and purity test may be made. The list being prepared will include corn, wheat, oats, barley, field peas, alfalfa, clover, vetch and other crops.

Seed should be obtained near home if possible. There is some assurance that home-grown seed is better adapted for growing in its own locality as it has itself been produced there. It is often possible to refer the inquirer to some one in his own neighborhood who has the kind of seed he wants.—E. G. Shafer, Agronomist.

Deep pink coloring in an Early Ohio potato is said to indicate poor growth or bad health, and that is one of the many differences between a potato and a girl.
