

SUMMER PRUNING GOOD PRACTICE

Young Trees, Bearing Trees and Those That Fail to Fruit Helped

What, When, How and Why the Practice, Explained by Professor Lewis, of O. A. C.

Oregon Agricultural College, Corvallis, June 21.—Summer pruning done in the proper way at the right time, will aid in bringing young trees up to the critical bearing stage in better condition and tend to modify the bearing habits of the more mature trees to make them more satisfactory, according to Professor C. I. Lewis, horticulturist of the College, who explains the why and the how of summer pruning as follows:

"Let us consider first the summer pruning for our young trees during the formative period, that being the ages from one to four. In many cases not much pruning will be done during the first summer of the tree's life, as the trees often do not make very much growth the first season, but where they do make a vigorous growth and make it by the middle of June or early July it will often be found to advantage to head the trees at that time, cutting them back just about the same way that you would cut them back the following spring. That is, if you have a long terminal growth, 12 to 30 inches in length, cut it back to the point where you desire to force out new laterals for the future body building of the tree. Now, you may have a tree that is running to one or two branches at the expense of all the others. It would be well to pinch back these strong branches, so as to hold them back for the time being and thus encourage the weaker branches to grow.

"While most growers prune the weak branch to even up the growth careful investigations and record at the College orchards show that the proper procedure is to prune the strong branch, which diverts much of its nourishment into the weak branch.

"By the second year nearly all these trees can be greatly benefited by summer pruning. This may come any time from the latter part of May up to the middle of July, generally about the middle of June. It consists of cutting back the rank terminal growth so as to force out the laterals and allow them to make a good growth and become hardened before fall. In this way you will gain a whole year in the framework of your trees. A good practice to follow with such trees is to do most of the heading back in June and most of the thinning out in March or April, or whenever the winter pruning is done.

"Should the trees after they are pruned in June make such a rank growth that they need some topping back again the following spring, you should by all means do so. In nearly all cases it will be advisable to do some topping back of the terminals, or else the terminal bud will incline to continue this growth producing a long leggy branch. If no topping is done on these shoots in spring it will be necessary to give them a heavy heading back in summer, to prevent their becoming too long before producing desirable laterals. You should remove from these young trees, during the summer time, any undesirable growth, branches which you know will never be of any value to the trees and are growing at the expense of some branch which should be developed. We would caution, however, against the too strenuous thinning out of young trees. We are of the opinion that we have overdone the thinning out of the lateral branches.

"This pruning which is given to these young trees, while it does not as a rule directly induce fruitfulness tends to bring the trees up to the critical period in much better condi-

tion than otherwise. Since it tends to balance the tree and distribute the pruning as it does over two periods of the year, it eliminates the necessity for very vigorous pruning which so many growers give trees. The heavy winter pruning given young trees serves as a stimulus and often causes too much vegetable growth."

The application of summer pruning to trees from four to eight years of age will be discussed in a subsequent issue of the Bulletin, since the pruning is not required until later in the year. The following applies to trees from eight to ten, that have never borne but should be fruiting:

"We shall now consider the trees that are from eight to ten or twelve years of age, which should be fruiting but have never borne. These trees have almost always been over-stimulated. They have been over pruned, over tilled, over irrigated; they have had one or a combination of stimuli given them which results in forcing rank wood growth, producing heavy leaves, but little or no fruit. The remedy is to remove the stimulus,

whatever it may be, and prune several times a year.

"Summer pruning for such trees will come probably more about the time one should prune the very young trees; that is, along in June. At each time when the terminal growth has reached such a length that you can see it is going to become excessive, it should be cut back and the trees thinned out somewhat and the following spring a little more thinning and pruning out may be done to advantage. The application of summer pruning to these trees should be largely merely a distribution of the pruning over two periods, thus avoiding an excessive pruning. In very rare cases could you expect direct results from such pruning. It will come indirectly in bringing the trees back to their normal balance. It often becomes necessary to reduce the amount of tillage or irrigation given such trees and in cases where they are abnormally excessive it is sometimes found advisable even to check their growth by growing crops between the trees, as some hay or grain crop."



Another Handy Device, which Holds Pigs Away While Trough is Filled.

PUTTING YOUNG CHICKS IN HOUSE

Crowding to Be Avoided to Prevent Stunting

100 Small Birds May be Housed in Room 6 by 8 Feet.

Oregon Agricultural College, Corvallis, June 21.—"The number of chickens to be put in one house will depend to some extent upon the size of the birds," says C. C. Lamb, Extension poultry husbandman of the Oregon Agricultural College. "Only enough should be put in to occupy the roosting space provided. If in a house 6 x 8 feet three roosts running lengthwise are provided and spaced about ten inches apart sufficient roosting space will be given for 100 chicks when six to eight weeks old. This amount of room will not accommodate them for long. But if the cockerels are sorted out as they approach the broiler size, additional room will be given the remaining growing pullets. There should be sufficient room for 50 pullets until the time arrives to put them in the laying houses.

"It is very harmful to crowd too many chickens into a house and sickly stunted birds are bound to result if this is done. Fowls require more oxygen in proportion to their size than any other domestic animal. They require more than twice as much as do humans or cattle. From this it is easily seen that it is very necessary to get the chickens spread out on roosts as soon as they are well feathered and any considerable number are put together in one house. Chickens are prone to huddle together in a corner, which results in the weaker ones being trampled or smothered and prevents each chick getting a good supply of fresh air. When chicks roost through the night in this way, they become too warm and when they get out in the cool air there is much danger of taking colds.

"To induce the young chicks to roost it is a good plan to begin with

the roosts about 14 inches from the floor and gradually raise them to about 2½ feet as the birds become accustomed to going on them. To break young chickens into using the roosts it is often necessary to force them to go on the roosts by arranging wire netting close up underneath the roosts and fastening it to the floor so that the chicks can not get down between or under the roosts and huddle on the floor.

"The roosts for young fowls should present a rather broad surface on top. A small roost is liable to cause crooked breast bones from the soft plastic bone resting on a small surface. A desirable roost for young stock can be made from a 1 in. x 3 in. board smooth on all four sides and with the two upper corners slightly beveled."

OREGON ROAD OFFICERS MAY GET HELP OF EXPERT

Oregon Agricultural College, Corvallis, May 31.—Road supervisors and other officers interested in building and maintaining public highways of Oregon may now secure the services of a specialist in road construction and maintenance in solving their problems of best types of roads for their district and the best methods of construction. The Agricultural College Extension department has arranged to have Professor G. V. Skelton, highway engineer, consult with those who wish to secure advice and assistance in solving their problems in the best interests of their constituency.

Professor Skelton's work is strictly advisory and is limited to questions of grades, types of road for given district, best means of construction, and similar matters, and is without charge to the people of Oregon. Those wishing to take advantage of this service should write the Extension division, R. D. Hetzel, director, so that arrangements may be made to have Professor Skelton's visit made when he is scheduled for work in their part of the state. In case assistance is desired before September 1 the requests should come in at the earliest possible date.

SELF-FEEDERS FOR SWINE PROFITABLE

Animals Eat More Feed and Put on More Flesh for What They Eat

Gain in Weight for Each 100 Pounds of Feed Averaged 0.7% Better Than When Hand-Fed.

The self-feeder is a combination of a trough and hopper, the latter placed above the former and communicating with it by a throat. The latter opens into the trough well below the upper edge of the trough and far enough from the edge to permit pigs to eat. As the supply at the opening of the throat is exhausted, more feed runs down from the hopper. Thus the pigs have a supply constantly before them so long as there is feed in the hopper, but are unable to waste or soil the feed.

The throat opening into the trough should be adjusted that the particular feed used will run out but not too freely. Coarse ground barley will feed more rapidly than finely ground barley so that it is well to have the sides of the hopper set into grooves at the ends and held at the correct place by pegs or by a wing-nut. The Iowa Experiment Station uses the latter method with satisfaction, though the Oregon Station has secured good results with the one of which the design is herewith given.

Fattening hogs on pasture, which is one of the most economical ways of finishing them, is much more easily done by the use of the self-feeder. The latter may be taken to the field and little attention given it except refilling at intervals, depending on the size and number of pigs having access to it.

Self-feeders can be so built as to feed from one or both sides, and to hold any amount desired. If made too large, they are hard to move, if they are to be moved; and they also take up an undue amount of room. The minimum trough allowance per pig has never been arrived at, but six inches per pig has been found ample, only a small part of the herd eating at one time.

In six trials, the Agricultural College and Eastern Oregon Experiment Stations, testing the self-feeder against hand feeding the same ration twice daily, and employing all the leading feeds of Oregon, found the average daily feed per head consumed from the self-feeder was 6.783 pounds; from hand feeding 6.244. The average daily gain per head with the self-feeder was 1.676 pounds, and with hand feeding 1.401 pounds. The feed per 100 pounds gain required by the self-feeder lots was 404.768 pounds and with the hand fed lots 433.586 pounds. A saving of 0.7% of feed was effected by the use of the self-feeder. The labor factor is also materially decreased. The self-feeder may unquestionably be used with profit to a much greater extent in this state.

The following is a bill of lumber for the type of feeders used at the College Station: These feeders are 3 feet wide, 3 feet high, and 6 feet long. They feed from both sides and accommodate ten hogs nicely.

1 x 32 x 6 in. x 2 equal 32 board feet, top and bottom.

1 in. x 32 in. x 36 in. x 2 equal 16 board feet, for the ends.

1 x 36 in. x 6 ft. x 2 equal 36 board feet for the sides.

2 x 4 x 6 ft. x 3 equal 8 board feet for the sides of the trough.

1 x 12 in. x 6 ft. x 2 equal 12 board feet for the sides in the middle of the feeder.

2 in. x 4 in. x 3 ft. x 4 equal 8 board feet for outside braces.

1 in. x 3 in. x 1 in. x 10 equal 2½ board feet for slats.

1 in. x 2 in. x 36 in. x 8 equal 4 board feet for the braces at the end.

120 board feet @ \$11 per thousand equal \$1.30, exclusive of the labor.