

This is a service page for farmers, written not to take the place of, but to draw special attention to, other and fuller sources of information. In particular, its purpose is to help farmers to get the fullest benefit from the broadcast talks prepared by the Department of Agriculture.

Take a Note of These Talks:

1YA: "Importance of Quality in Farm Seeds." By W. Alexander. Monday, July 3, 7.40 p.m. Farming Down the Ages." By C. L. Gillies. Tuesday, July 4, 2.10 p.m., in the educational session.

2YA: "Equipment for the Supplying Dairy." Arranged by the Department of Agriculture. Tuesday, July 4, 7.30 p.m.

8YA: "The Erection of the Milking Shed." By an Officer of the Department of Agriculture. Friday, July 7, 7.35 p.m., after the review of the Journal of Agriculture and the Sheep Survey.

4YA: "The Growing of Wheat in the South." By J. O. Wallace, of the Department of Agriculture. Monday, July 3, 7.40 p.m.

Bees in Winter

Most bee-keepers know that the strength of colonies in winter is less than in summer. They also know that after an unfavourable summer the food reserve is lower. But many people who keep bees do not know much more than this.

While it is not possible to know too much it is possible to interfere too much, and that is why you were warned a week or two back in a broadcast talk that the opening of hives and the manipulating of broads and combs should soon have ceased.

You should of course remove any empty supers that may still be on the hives, as the colony will keep warmer if the hive is reduced to two storeys. It is also advisable to protect the hive against rain. But once these things have been done the hive should remain undisturbed till winter is over. These are some of the things that may and should be done outside the hives:

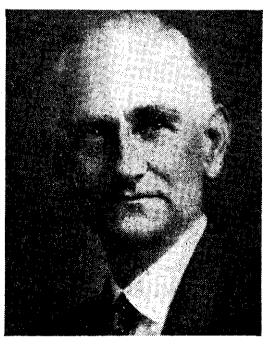
- Grass should be cleared away from the entrances.
- (2) The entrances should be closed sufficiently to keep mice out (and also to conserve warmth).

Beginners are also warned that it is a mistake place hives under trees or hedges. Such places are draughty and sunless, and favourable only to those kinds of insect life which thrive in damp places. It is also bad practice to place the bottom board of a hive on wet or cold ground. Unless the situation is very favourable the hive should rest on bricks or wooden blocks.

Research and the Farmer

What is research doing for the farmer that it is not doing for everybody else? It has given him electricity, the motor car, and radio, for example, but it has given these things to all other sections of the community. It is not at all likely that the special needs of farmers brought any of these improvements to the service of mankind a day sooner than they would have come if farming as an industry had ceased to exist.

On the other hand, we must not suppose that research is something of which the farmer himself



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Radio vastly extends the service of this department.

is not capable. Research does not necessarily mean laboratories, microscopes, and spectacled men in white coats. Some of the greatest advances in agriculture have been based on discoveries made by farmers who knew nothing at all of what we commonly call scientific method. It is in fact quite safe to say, so far as agricultural research is concerned, that it will not get very far unless the research worker and the farmer go hand in hand.

Further, a little reflection will show that the work done by the farmer and for the farmer must be co-ordinated and reinforced by the activities of the State. For example, the individual farmer can't protect himself against the introduction of pests and diseases from other countries, or from other parts of the same country. The more science does to facilitate transport the more it exposes the farmer, and of course all other sections of the community to invasion by hostile forces.

Finally, there is the problem of defending us against our defenders. One of the most important duties of the State in the field of agricultural research is to protect the farmer against cures that

are worse than the original disease. Everyone could think of a dozen examples of introduced birds or animals or insects or plants that are now a far bigger anxiety than the evil they were brought in to overcome. If the farmer is to be kept safe the seeds he sows must be certified, the animals he imports must be quarantined, the sprays, fertilizers, and stock remedies he uses must be tested not merely for their genuineness, but for proof that the good they do overwhelmingly counter-balances the harm.

All these points and many more were emphasised before the present series of broadcast talks to farmers began, but it is necessary at intervals to restate them and reconsider them.

Have You Pruned Your Apple Trees?

Every gardener knows that there are as many ways of pruning an apple tree as there are of killing a cat. There are, however, some good ways and some bad ways. Here are the basic principles according to the Horticultural Division of the Department of Agriculture. Some of you have already heard them over the air.

- To shape and build the tree so that it may be easily serviced and maintained.
- (2) To offset the natural habit of biennial bearing.
- (3) To maintain the balance between wood growth and fruit spur production, and thus preserve the commercial life of the tree.

For the first four years your chief concern must be to shape and build. This means that you must select and shorten the growths made after the pruning of the rod at planting. As these shoots will eventually be the main arteries of the tree, or the "leaders," you require at least four, and not more than five.

Although no hard and fast rule for cutting car be laid down it is generally sufficient to remov from one-quarter to one-third of the season's growth It is also necessary to remember:

- That the leader growth must be shortened annually.
- (2) That the cutting must be done as close as possible to the buds selected to remain.

The treatment required during the second and subsequent years does not differ much from that required during the first year, but as the tree increases in size it is necessary to give attention to the direction the new growths are taking. You will not be far wrong if you have given your tree four or five strong upright leaders, carrying, every two feet or so, three or four horizontally inclined fruiting arms.