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MORE AND BETTER BEES

A transcribed talk by Gove Hambidge, Coordinator of Research Publications, Agricultural Research Administration, U. S. Department of Agriculture. Recorded August 2, 1945. Time: 7 minutes and 11 seconds, without announcer's parts.

ANNOUNCER'S OPENING AND CLOSING

OPENING

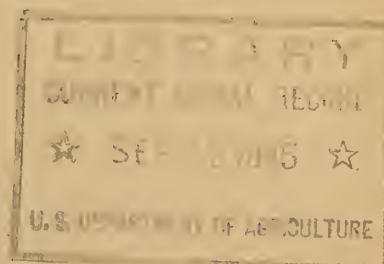
ANNOUNCER (LIVE): I guess you've all heard the old rhyme that starts like this: "For want of a nail a shoe was lost." I won't go through the whole thing, but the moral to the verse is that big events sometimes hinge on little things. And today we're going to hear a true transcribed story of how one tiny citizen of the animal kingdom affects our daily life whether we live on the farm or in the city...

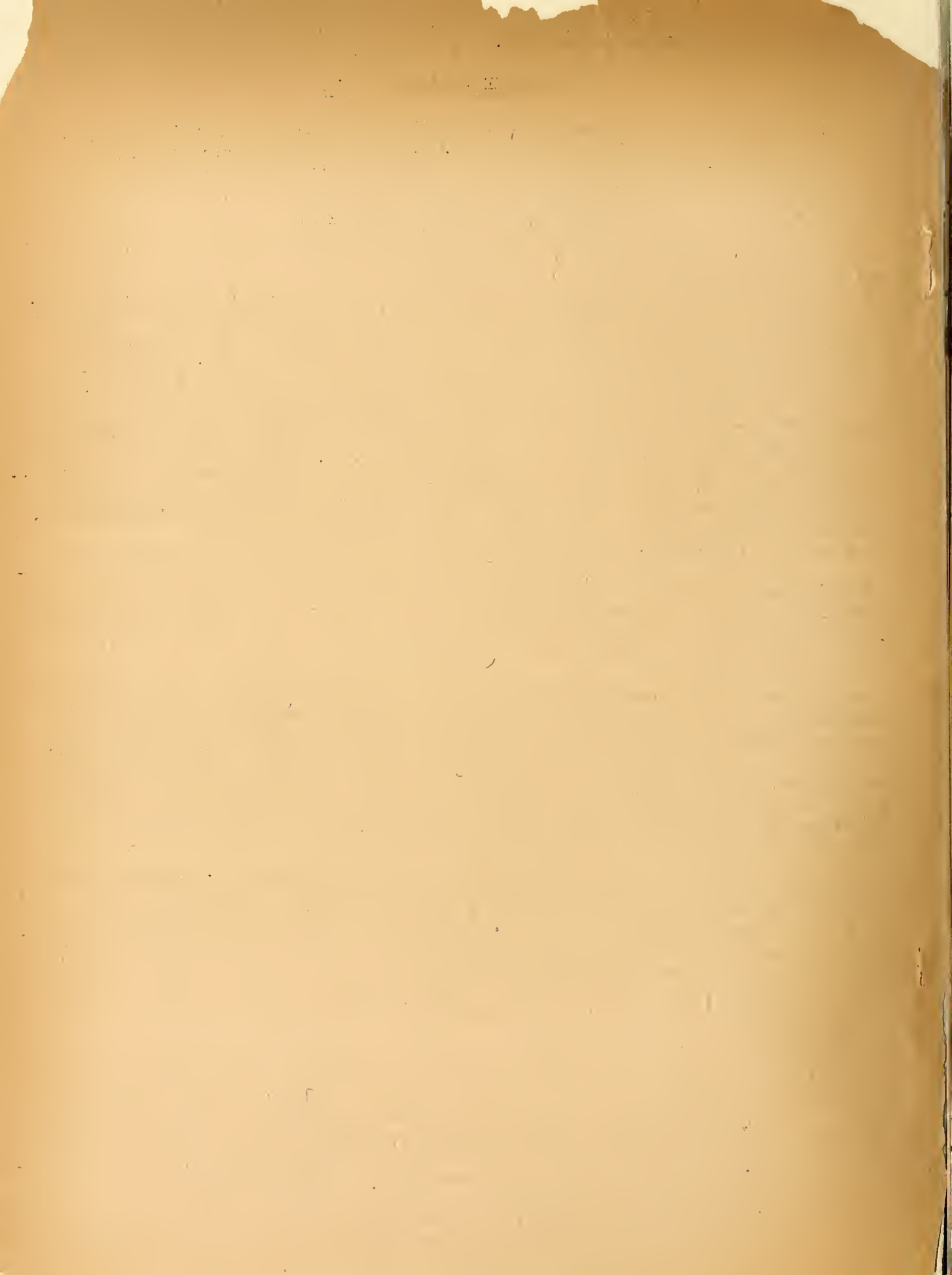
I'm not going to spoil the story by telling you the name of this wee beastie. I'm going to leave that to Gove Hambidge of the Research Administration of the U. S. Department of Agriculture...And here he is:

CLOSING

ANNOUNCER (LIVE): Well, permit me to say, Mr. Hambidge, that you've helped to make the role of the honeybee in civilization a lot plainer through your talk today. And thanks for the good job of sooth saying. Folks, Gove Hambidge of the Research Administration of the U. S. Department of Agriculture has just finished telling us of the importance of the honey bee as a pollinator of plants. And he's told us of some of the important scientific discoveries that have been made and are going to be made in the life and habits of the bee.

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TRANSCRIPTION:

This is a rich country of ours--rich in the quantity and variety of foods and feeds it produces--the fruits and vegetables of all kinds, the grains, the livestock products, the forage crops to feed the livestock. To me, it is a sobering thought that so much of this food production depends on a tiny little creature with two pairs of wings, an extremely busy tongue, and a sting in its tail. Nature has so arranged things that most plants, like animals, have to mate in order to produce. The mating, in the case of plants, is accomplished in various ways. One way that is very common is for bees to carry pollen from one flower and deposit it on another. Bees are the ministers that officiate at the marriage of flowers. And the flowers, of course, pay them a small fee--a little nectar which the bees take home and make into honey--a little pollen which they take home to feed their young. This marriage takes place billions on billions of times every day--and because of these countless numbers of flower matings, we have apples and peaches and berries, and the seeds we plant to produce carrots and cantaloup and cabbage--and alfalfa and clover--and a long string of other plants--including cotton for our clothing.

This is so commonplace a fact that we forget about it. We forget about the importance of bees in the scheme of things just as city people sometimes forget about the importance of farmers in the scheme of things. But without farmers there would be mighty few city people--and without bees there would be mighty few farmers.

The elementary importance of this fact has lately been brought rather forcibly to the minds of quite a few people. For we have had to push production to the limit during this war--and sometimes we find that our crops of seeds of important plants, like certain of the forage crops, are a good bit less than they ought to be. So we start to find out why. And one of the biggest reasons seems to be that there just aren't enough bees to pollinate the flowers. By bees I mean honeybees. There are some wild bees and other insects that pollinate crops, of course. But the honeybees do by all odds the biggest part of the job.

Now this is serious business. For when you depend so much on one factor, that one thing can easily become a weak link in the whole chain of production. That seems to be what's happening now in the case of bees. We need more bees. It can be taken for granted as a general principle that the more of certain kinds of crops we want to produce, the more blossoms there are to pollinate, and the more bees we have to have to do the work. And, of course, the more important it becomes to do a good job of beekeeping, and to prevent the wholesale poisoning of bees by insect sprays, for example.

I'll do a little crystal-gazing and make a prediction. I will predict that we're going to pay more attention to bees in this country because I think we're going to have to. Not from the standpoint of honey production, although honey to my mind is one of the most delicious of foods, but from the standpoint of sheer self-protection for our agriculture. The simple fact that the fewer the bees the less abundant the crops--and no bees, no crops, in many cases--is just beginning to be realized in its full implications. It will force us to think about bees in new terms--as a vital link in the chain of crop production, which we neglect at our peril. It must be made into a strong link, and we shall need to plan beekeeping operations accordingly.

This throws a great deal of emphasis on beekeeping research. Mankind has been keeping bees for several thousand years, I expect, but we're now finding out how little we really know about them. Some of the newer discoveries are rather startling in their possibilities for doing a far better job with bees than even the best of beekeepers has been able to do in the past.

If I were to sum up these discoveries in a few words, it would be about like this: We have known, of course, that bees must be subject to the same laws of heredity, and the same general principles of nutrition and disease control and so on, as other animals. But we knew very little about what those laws and principles were in the case of bees, and still less about how to use them. Now we're really beginning to find out. And I think it's safe to say that we shall be able to manage bees more and more as we do livestock--dairy cows and hens, for instance--for high and efficient production, both in terms of honey production and in terms of pollinating crop plants.

For example--there are high-producing lines of honeybees and low-producing lines, just as there are high- and low-producing lines of cows and chickens. There are gentle and vicious strains of honeybees just as there are gentle and vicious dogs; the gentle bees still have stings, all right, but they just hardly ever feel in the mood to use them. There are lines of honeybees very resistant to the most deadly of bee diseases, American foulbrood, and there are susceptible lines. I never personally cared to try to measure a honeybee's tongue, but the scientists who have tell me that some have relatively long tongues and some shorter ones--as cows have large or small udders.

Well--why not use these facts and breed better bees--just the kinds of bees we want--high-producing, disease resistant, gentle, and so on? We haven't been able to so far because it has been utterly impossible to control the mating of bees as we control the mating of other animals. But now we're beginning to do just that. After years of work, the bee scientists have finally got the artificial mating of queen bees down to such a fine point that they can almost do whatever they want in the way of controlled breeding. Which is quite something when you consider how small a creature a bee is.

There are several other important new developments in bee research--but controlled breeding is the most important of them all. I'll be a crystal gazer again--and predict that controlled breeding is going to result in a great deal of progress in scientific beekeeping in the next few years. It's about time. Our modern high-producing civilization is more dependent on the honeybee than most of us will ever realize.

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