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Should Beekeepers Keep Wild Bees for Pollination?

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THE way it is now, when a seed grower decides he needs leafcutting bees or alkali bees for alfalfa pollination, he enters the beekeeping business himself. You, as beekeepers, know how successful farmers generally are when they try to keep their own honey bees for pollination. They aren't. You won't be surprised to learn that they have about the same problems when they try to keep wild bees. Running farms for such small game just isn't up their alley.

Strange enough, in spite of the great and growing demand for wild bee management in alfalfa seed growing areas, very few beekeepers have offered their services. By virtue of their experience and temperament, shouldn't beekeepers be the best qualified people to provide such services? Keeping honey bees and wild bees are not mutually exclusive operations, even though it would not be wise to pasture honey bees on a field provided with the optimum number of leafcutters needed for pollination (5 to 10 thousand per acre).

Right now, I can only think of one beekeeper, Don Strachan of Yuba City, California, who makes a business of renting wild bees for pollination. In 1967, in cooperation with Mike Eddies, the farm manager, he provided about 6,000 leafcutting bees per acre for the pollination of 1,000 acres of seed alfalfa on the Sanborn Farms in Yolo County, California. On some adjacent acreage, not so heavily populated with leafcutters, he placed a large number of colonies of honey bees.

Here are the kinds of operations that might be required of a beekeeper if he wanted to provide a leafcutting bee service:

1. Obtain a stock of nesting materials. He could purchase drilled or grooved board units or prepare his own. Paper soda straws (7/32 inch inside diameter) have also been used successfully by some bee producers, notably Walt Brinkerhoff at Lovelock, Nevada.

2. Construct field shelters. A simple one consists essentially of a cup-board on legs with hurlap walls and a wooden roof. An extra roof board elevated a little so air can circulate between it and the inner roof is desirable. White paint on top helps.

3. Place ready-to-emerge bees in the field in shelters. Provide supers (additional nesting materials) during the season as needed.

4. Place the nesting materials in cold storage (30 to 40° F.) in the early fall. It is also possible to “peel” or “punch” the cocoons out of some types of nesting materials and to overwinter them after running them over a seed clipper to remove many of the nest-destroying beetles.

5. Place the nest materials or cocoons in an incubator (80-85° F.) about 18 days before they are needed in the field. Often the same structure can be adapted for use as cold storage and incubator. Use light-water traps to eliminate parasitic wasps, and bait traps for scavenger beetles during this period. Loose cocoons should be buried under several inches of coarse sawdust when they are placed in the field.

Naturally, these 5 steps are not all a beekeeper would have to think about, but they represent the basic operations. More detailed management recommendations and suggestions are contained in Utah State University Extension Leaflet 104 and in various Extension and Experiment Station leaflets available from the Universities of Idaho and California, Washington State University, Oregon State University, and the Dominion Experiment Station at Lethbridge, Alberta, Canada.

Alkali bee management is an entirely different proposition since it involves the development, stocking, and maintenance of suitable nesting areas for soil-inhabiting bees. Mr. Herman Menke, at Wapato, Washington, a one-time beekeeper but now mostly a seed grower, has developed many such sites for himself and his neighbors. On the whole, alkali bee management is probably less compatible with beekeeping than is leafcutting bee management, but in special areas and circumstances, the opportunities should not be overlooked.

Any beekeeper who investigates the bee forage situation in areas where seed growers use wild bees for pollination will be amazed at the care taken with insecticides. The growers even try to control the use of Sevin® (carbaryl) on corn in the area because it might be dangerous to their wild bees. Naturally, the beekeeper benefits from this situation, even if his honey bees are not being protected for their sakes or his. If the beekeeper himself were to start taking an active interest in wild bee management, the use of insecticides could be integrated even more carefully into maintenance of bees.

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