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BEEKEEPING POSSIBILITIES IN ARIZONA

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Ten Fold Increase in Honey Production Possible in Arizona—Unoccupied Mesquite and Cat's-Claw Areas Merit Establishment of Apiaries

ARIZONA, especially the southern portion, offers to bee keepers certain advantages, such as long season and freedom from any serious problem of winter packing. It also affords an abundance of opportunity for expansion of the industry, as will be indicated. The average annual production of honey in the state is estimated at about 900,000 pounds, or 450 tons. Former State Inspector of Apiaries L. E. Matteson, and others, have estimated that this amount might be increased ten-fold or to a total production of 4,500 tons per year, partly by the use of better methods of beekeeping, but largely through expansion of the industry to occupy the area more completely and conserve the nectar now going to waste. Large areas offering good locations for apiaries are unoccupied; others are only partially occupied. In some of these there is the disadvantage of remoteness from market, but with the present use of the automobile and the rapid development of good roads systems, the extent of commercially available bee pasturage is much enlarged. A concentrated, high-priced, non-perishable product, such as extracted honey in 60-pound cans or friction top pails, may be profitably hauled a much greater distance to market than most other agricultural products.

The most important native honey plants are the trees and shrubs known as mesquite and cat's-claw (**Prosopis velutina** and **Acacia greggii**). In locating an apiary one should seek the valleys and washes from mountain canyons where these plants grow most abundantly, forming as they do dense thickets where not cleared. Of the two, the writer regards cat's-claw as the more valuable, because of greater dependability of yield and quality of honey. There are two common species of cat's-claw, but only the one above mentioned is of value as a source of nectar; the other, (**Acacia constricta**), bearing an abundance of bright yellow ball-like flower clusters in both spring and summer, yields none. A wide variety of native wild flowers furnishes an early spring flow of nectar sufficient for daily consumption and brood rearing, and

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Standard equipment used for instruction in beekeeping at the University of Arizona. Shallow supers are in use, but full depth supers are used when the honey flow is on. Note wide entrance for warm weather.

BEEKEEPING POSSIBILITIES

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occasionally a small surplus in the most favorable years. The dry bahada slopes or mesas, covered with creosote bush, widely but erroneously known as "grease-wood", are not favorable locations, since this shrub yields but little nectar and the honey is of poor quality, strong and dark. Mesquite and cat's-claw blossom almost simultaneously in April, May, or June, according to altitude and season. They are commonly said to bloom again, producing a second flow in July-August rainy season, but in several years of observation the author has failed to note either an abundance of bloom, or an important honey-flow at this time.

In the Salt River Valley cotton and alfalfa honey are produced, although the region about Yuma produces more of the latter, since it is an alfalfa seed-producing area. Alfalfa in the arid southwest when cut for hay is mowed before any considerable blossoming occurs. Sweet clover growing is in its infancy, but offers lucrative possibilities to the Arizona beekeeper where irrigation is possible. Bees from the University Farm near Tucson were located one season in close proximity to several acres of sweet clover, from which they garnered a crop of honey at a time when there was little other nectar available. This honey was of disappointingly strong flavor, and of amber color, probably another instance comparable to alfalfa honey, which is darker and stronger in the arid regions than in moister climates.

As in any other locality, some seasons are much better than others, though complete failures are rare, and perhaps need never occur with the beekeeper who knows his job and his locality, so as to have his colonies ready for the one best bet, the mesquite-cat's-claw flow. An average production of 80 pounds per colony has been estimated, but probably 60 pounds is a safer estimate. Nevertheless, those beekeepers who use the most modern methods can secure better than 100 pounds per colony.

It should be noted that all the estimates offered above are with reference to extracted honey production. This region is not well adapted to the commercial production of comb honey, though some fine comb honey is at times secured. A small amount of chunk honey is produced and marketed locally. Some of the more important sections of the state not now well stocked with bees are the Santa Cruz and Rillito Valleys, and Pantano Wash, and their tributaries, in Pima and Santa Cruz counties; the San Pedro Calley in Cochise and Pinal counties—stocked in the Benson and St. David portion, but not elsewhere to any extent; the upper Gila Valley, incompletely occupied in Pinal, Graham, and Greenlee counties. A great area along the Colorado River from Needles to the Yuma irrigation project would yield quantities of honey, but has the disadvantage of remoteness from market. The Salt River Valley irrigation project is rather well stocked, but still offers some good locations in the outlying districts and along the Hassayampa, as at Wickenburg.

There are doubtless also untouched possibilities in the northern and higher regions of the state, but the seasons are shorter and wintering problems enter. Beekeeping will succeed in many places there, but it will require much better methods to secure adequate returns.

There is but little foulbrood in the state, very extensive areas being entirely free from it, and indications are good that it will be completely eradicated.

Poultry feed troughs should be placed high enough in tht pens to keep the fowls from standing in them while eating. Do not feed so much that any will be left in the trough at the next feeding.

DAIRYING AS A FACTOR

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feed and care for them. Also in order to be absolutely sure what a cow is yielding it is necessary that her milk be weighed and tested, and her cost of keep be figured. This is the great value of a Testing association to the farmers. The need, then, is more efficient management coupled with more applied scientific principles. In these days of high costs of labor and of marketing a dairyman needs to be a business man as well as a farmer and this calls for an adequate record of his business and a check on every item of expense and of returns. A little bookkeeping along with other farm operations will often mean the difference between success and failure. If records of the business are kept the dairyman can then safely practice good breeding, selection, and all other profitable operations because he knows where he stands and where he is headed.

In view of such facts it seems evident that dairying can be made profitable in Arizona, and furthermore that the business should be an important part of our farming if we are to have a stable and well balanced systemn of agriculture.