

BEES AND POULTRY,**MISTAKES MADE BY APIARIANS.**

I have fifteen stands of bees from four to eight feet apart. I think eight feet preferable. I have no wind breaks or sun screens yet, but am growing them. Trees are best, but until trees mature I use tomato vines and grape vines on trellis-work on the south side.

I wintered bees out of doors last winter, but hereafter shall use a large hive outside, with chaff filled in between. Mice would be troublesome but for my cat, the kingbird a little troublesome, bee-killer, called prairie-horse, also; occasionally find worms, but dig them out and kill them. I go through my apiary thoroughly once a week. Italian bees are not troubled much with insects if they are kept strong. Bees divide up too much in the spring if left to themselves.

I use a modification of the Langstroth hive, one storey and a half, with bottom fast to the body. My bee-veil is one yard of black tarlatan, with ends sewed together and a puckering string to draw it up around my neck. In moving bees I lock the frames with wedges and strips of wood; remove the cover; tack over the top wire or wire cloth screen; keep upright and handle gently. To transfer comb from box to movable hive, I drive bees out, cut out comb, lay it carefully on table covered with two or three thicknesses of cloth and cut to fit the frame, tying it with cotton twine, which I remove in two or three days, when the bees fasten them. I tip the table so as to bring the comb and frame upright before tying. Bees regulate themselves usually, in swarming, when they cluster together.

I buy my comb foundations or trade my wax for them. Have Italian bees. Have had black bees and hybrids; prefer the Italian. The black bee is probably the most hardy in summer and in good seasons, but will starve to death where the Italian will thrive. I want but one kind of bees or only one kind of hive. I control their increase by artificial swarming—cutting out queen cells and, in extreme cases, by giving a young queen in place of the old one. My bees feed on buckwheat, corn, smart-weed, willow, maple, red-bud, clover, Simpson's honey-plant, spider plant (both wild, but I have both in cultivation also), golden rod, hoarhound and catnip, besides others growing wild. Golden rod and smart-weed are the best wild honey plants. The Simpson honey plant and spider plant are the best cultivated honey plants. I have a large amount of seed of the latter, which I will distribute to bee-keepers on application. It is the best grown and easily cultivated.

The best winter feed is No. 1 "A" white coffee sugar, made into syrup; or still better, make sugar into candy with a little flour, and put inside hive. Fifteen to twenty pounds of honey for a strong hive, kept warm, will keep a swarm through winter, and give it a start in brood-raising. Do not extract honey. Have a wax extractor. Market the honey in one-pound sections. Have my wax made into comb foundations on shares. I have but one grade, A No. 1, which I market in box, twelve by eighteen inches, and nine inches deep, holding forty-eight one-pound sections. Transport carefully in buggy or spring waggon. I believe I could force a market by the superior quality and appearance of my honey, as I have a demand for all I make and loud calls for more. My market is here at home at twenty cents to twenty-five cents per pound. Good stands of Italian bees, in movable comb hives, bring from \$10 to \$25; while black bees in boxes, barrels or kegs, are worth only \$2.50 to \$5 per stand. I recognize but three drawbacks in apiculture in Kansas: winds, drought and shift-

less management; and they can all be overcome. First, windbreaks; second, stimulative feeding; third, increased energy, industry and care. The greatest mistakes made by apiarians are, too rapid increase and too much drone comb.—*Wm. Dyke, Eureka, Kan.*

POULTRY AS GLEANERS.

Now is the time for the farmer, says a French journal, to make use of portable houses to take his poultry to the fields, as also his geese and turkeys. Fowls like the charge, they enjoy roaming about; in fact, it is their holiday, and at harvest time fowls disport themselves as if they were aware that it was time to be sent into the field. A poultry yard, dry and restricted in space, with always the same food, is replaced by the open country, tender herbage, and where they feed on *friandises*, they have a thousand varieties of insects, and grain, which is often in a state of fermentation, thereby giving it an agreeable alcoholic taste, and which is seldom met with unless in the droppings of horses. Now is the time to send out into fields the fowls and turkeys. Poultry at this time of the year are in excellent condition; they can bear the fatigue of wandering about the fields to satisfy their appetites—a very useful proceeding for the farmer, not being required to go to his granary, but who finds a great saving by having the lost grain gleaned by his poultry. A little, active boy, vigorous and vigilant, is sufficient to take charge of a flock of turkeys, which he does with the help of a long stick, with which he threatens them in case they wander too far, but never strikes them with it. The boy must be very patient and gentle with them, and not hurry them on, so that they may not lose a single grain or insect. They ought to be allowed to eat as much as they like, always within an easy distance from home. On their leaving, as on their returning, the poultry woman ought to count them, and see they are not ailing, and to induce them to be regular in their return to the farm, a good feed of maize, barley, or buckwheat ought to be given to them.

PREPARATION FOR WINTER.

The "Bee Keepers' Text Book" says: See that every colony has a good young fertile queen. Unite weak and queenless stocks. See that each hive has from twenty-five to thirty pounds of good honey, with combs, which also contain bee bread, for rearing young bees. If later stores have been gathered from honeydew, cider mills, refuse from sugar refineries, or if the fall honey is very acid, they should be extracted, and the hives supplied with combs of good dark honey, set aside in summer with the honey from unsealed boxes, or they should be fed with sugar syrup. Give in such cases from five to ten pounds of sugar to each colony.

Make a syrup, putting one part of water, by measure, to two parts of sugar; let it come to a boil, to be sure that all has dissolved, and feed it in suitable feeders in the cap. Give it to them warm. Any kind of a good feeder, with floats to prevent drowning, will answer.

A good way is to fill quart fruit jars with the syrup, tie over the mouth a piece of cheese cloth, or other strong thin material, and invert directly on the top bars of the brood-nest; packing the quilts around well to keep in the heat. Sometimes two or three jars will be drained in a single night. If there is sufficient brood in the hive, feed rapidly, so as not to induce too rapid breeding. But if there is little or no brood present, the feeding should be more slowly, to induce brooding, for a plenty of young bees is one of the important elements in successful winter-

ing. In sections where there is little or no fall honey to stimulate the queen, we would advise extracting the honey from at least a few of the central frames, and stimulate so as to go into winter quarters with a fine supply of young bees as well as a plentiful supply of good stores. There is no better winter food than syrup made from nice A sugar. At this season out-door feeding must not be practised, because the stronger colonies which least need it will get the most, and so fill up the brood nest, that there is not a good nest of empty comb in which to begin the winter.

ARTIFICIAL EGGS.

The funny man of the *Detroit Free Press* lately published a sober account of a manufactory of artificial eggs, said to be doing an extensive business, with detailed description of the processes of manufacture, the composition of the product, etc., as if the whole thing actually existed. It is copied into the *London Mark Lane Express* simply as a burlesque, but other English papers seem to have been completely hoaxed, if we may infer from the following paragraph which appears in the *London Farmer*, and is probably going the rounds, and in which we see no symptom of the faintest perception of a joke—scarcely ven in the concluding sentence:

"The manufacture of artificial eggs across the Atlantic is largely increasing, and one establishment alone turns out upwards of one thousand every hour. The yolks are formed of a paste composed of corn flour, starch and other materials. The whites are made of albumen, and are chemically identical with the whites of real eggs; the inner skin is a film of gelatine, and the shell is of plaster of Paris, and is somewhat thicker than the original. The yolk is first rolled into a ball and frozen hard, then it is enclosed in the albumen and submitted to a rapid rotatory motion which makes it a proper ovoid form, and again it is frozen. It is then dipped into the gelatine, and after that into the plaster, which, while drying rapidly, retains the form after the contents have melted. It is said that, in point of taste, the eggs cannot be distinguished from the real article, while they will keep good for years, and are not so easily broken. They can be flavoured to resemble ducks' eggs, but up to the present it is stated that even the most assiduous hen had failed to produce chicks from these compounds."

When it is considered how rich eggs are in nutriment it must be obvious that they cannot be produced in large numbers unless large quantities of rich food are consumed by the hens. Feed the pullets well now if you expect them to shell out this winter.

One of the best things many farmers could do would be to build a long open shed adjacent to their poultry house, where the fowls could scratch and sun themselves on cold stormy days. It need not be expensive, but should be substantially built. Such a shed is almost indispensable to those who raise early chickens.

In California bees are owned largely by capitalist and are "farmed out"—that is, apiaries of one hundred swarms or so are placed on the grounds of farmer, generally from three to four miles apart. The farmers receive a fixed rent, or a share of the honey, for their compensation as may be agreed upon. On an average, one acre of ground is estimated to support twenty-five swarms of bees, and the yield of a swarm is generally about fifty pounds a year.

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