

**BEEES AND POULTRY.****FEEDING BEES.**

Bees should be reared so as to give the bee-keeper some surplus honey, instead of requiring to be fed by him. But feeding should be attended to, when necessary, at the proper time. By the use of movable comb-hives, deficient colonies may be supplied with one comb or more containing honey from a colony having a surplus. Enough food should be furnished them in the fall to last them until fruit trees begin to bloom in the spring. If done in the beginning of October, the bees will cap over the honey before the cold weather begins. Uncapped honey absorbs impurities, often sours in the cells, dampens the air in the hive, and frequently causes dysentery among the bees. If the needy colony is in a first-class hive, any partly-filled box of honey may be placed upon the hive. The large openings from every comb in the hive and the direct communication induces them to take possession of its contents readily, even during freezing weather. Bees in common hives, or in hives having a honey-board or air-space between the frame and the box, would sooner die than enter a honey-box in cold weather. If needy stocks are not thoroughly fed in the fall, or if an unfavourable summer is followed by a severe winter and late spring, feeding may become necessary in the spring. Langstroth says: "In the spring the prudent bee-keeper will no more neglect to feed his destitute colonies than to provide for his own table." The feeding of bees should be done inside the hive or above their combs, if there are passages from below. They should never be fed outside the hive, for that will always teach them the habit of robbing. If honey stored in frames or boxes is retained for such emergencies, it is by far the best method; but if all the honey in frames has been imprudently sold or used, the best food that can be given them is strained honey. In the fall, if the needy stocks are in the movable comb-hive, remove two or three empty combs from each, lay them on a board or table, and sprinkle warm honey over the upper half of the comb until the cells are about two-thirds full; let it cool for a short time, then turn it over and fill the upper half of the other side; replace the combs in the hive, and feed in the chamber a few days until the cells are capped over. The importance of feeding is only fully realized when we bear in mind that from a pound of sugar syrup, costing only about six cents, as much comb will be built as from a pound of honey, costing thirty cents. To make syrup for feeding, take brown sugar, and to every pound of it add one pint of boiling water; boil the whole for a few minutes and skim. If bees must be fed in winter, owing to neglect in the fall, pour the honey directly into the combs, if the stocks are in the movable comb-hives; if in the common hive, remove it to a room, invert it, cut out enough comb to admit a small plate filled with honey, place it near the bees, and tie a cloth over the mouth of the hive to confine the bees, or a small bag filled with honey and sugar may be suspended in the hive from above, cutting away enough comb to admit to it the cluster of bees.—*Bee-keeper's Guide.*

**COMB FOUNDATION.**

Comb foundation is one of the great aids in apiculture which is of recent invention. It is made by stamping thin sheets of beeswax by means of engraved rollers or plates. The foundation differs hardly at all from the natural comb except that the cells are only just commenced and that they are much thicker than the natural comb. This thickness, however, is found to be an advantage rather than a disadvantage, as the bees utilize the extra wax in completing the comb, and are thus saved from secreting the wax, which is done at great expense, as it takes twenty pounds of honey to nourish the bees while the latter are secreting one pound of wax. Foundation was first stamped in Germany by means of plates, but was first made prominent in this country, where its perfection made it of great value to the bee-keeper. Heretofore, in this country it has been made with rollers almost entirely. Most of the roller machines make the walls of the cells thin and the base thick. The Dunham machine, on the other hand, makes the walls thick and the base of the cells thin. This, it is thought, makes the foundation less likely to sag and bend, and makes it a little more acceptable to the bees.

Lately presses have been made that enable us to stamp the wax right in the frames, which have been previously wired. That is, several small wires unite the centre of the top and bottom bars of the frames. This holds the combs securely, prevents the sagging of the foundation, and is rapidly growing into favour. Mr. Root, the one who has made and sold the most of the roller machines, says the presses are likely to supersede the rollers. Where the frames are not wired, the foundation is fastened into the frames by pressing it when it is warm on to the top bar, or by sticking it with melted wax. Full-sized sheets are now used without difficulty. The foundation is only made to adhere to the top bar, and does not come quite to the end bars or to the bottom of the frames. By using foundation the bees are saved the expensive work of secreting wax to a large degree, and so the honey product is immensely increased. Very thin foundation is now used by many in the sections. Foundation is now in the market and can be had of any supply dealer. The price ranges from thirty-five to forty-five cents per pound.—*Professor A. J. Cook, Michigan Agricultural College.*

**COMPARATIVE YIELD OF EGGS.**

There is a wide difference in eggs. A correspondent writes to say that the largest eggs he ever got were from Houdans, "which weigh about six to the pound." Houdan hens, when fully matured, lay large, rather longish, white eggs, but they will not do it until two or three years old. The largest and richest eggs that I ever met with were from the Spanish and Hamburgs. These two fowls crossed produce eggs very large, and rivaling the turkey egg in fineness and richness. Brown Leghorn eggs ordinarily weigh nine to the pound, on the average; selected ones probably would go seven to the pound.

There has of late been an improvement in size of the Asiatic egg over the first introduced Shanghai fowl. Some of the varieties, as well as many of their crosses, lay eggs rivaling in size those of any other variety. In quality they do not excel, usually possessing small yolks. The true Brahma egg is rather small and of a fresh coffee colour, with thick, heavy shells. The eggs are generally uniform in size and oval in shape. The average standard, however, is as follows: Light Brahmas and Partridge Cochins, eggs seven to the pound; they lay, according to treatment and keeping, from eighty to one hundred per annum, oftentimes more if kept well. Dark Brahmas, eight to the pound, and about seventy per annum. Black, White and Buff Cochins, eight to the pound; one hundred is a large yield per annum. Plymouth Rocks, eight to the pound, lay one hundred per annum. Houdans, eight to the pound, lay one hundred and fifty per annum; non-sitters. La Fleche, seven to the pound, lay one hundred and thirty

per annum; non-sitters. Black Spanish, seven to the pound, lay one hundred and fifty per annum. Dominiques, nine to the pound, lay one hundred and thirty per annum. Games, nine to the pound, lay one hundred and thirty per annum. Crevecoeurs, seven to the pound, lay one hundred and fifty per annum. Leghorns, nine to the pound, lay from one hundred and fifty to two hundred per annum. Hamburgs, nine to the pound, lay one hundred and seventy per annum. Polish, nine to the pound, lay one hundred and fifty per annum. Bantams, sixteen to the pound, lay sixty per annum. Turkeys' eggs, five to the pound, lay from thirty to sixty per annum. Ducks' eggs vary greatly with different species, but from five to six to the pound, and from fourteen to twenty-eight per annum, according to age and keeping. Geese, four to the pound, lay twenty per annum. Guineas, eleven to the pound, lay sixty per annum.

The quality as well as the quantity of eggs is greatly owing to the keeping. Many times the above weights may be exceeded, at others not reached. Keeping and management have much to do with it. While it is to be regretted that so many of our valuable fowls appear to disadvantage, consequent on indifferent rations, there are many times when highly prized and tended specimens do honour and credit to the variety.—*Cor. Country Gentleman.*

**WATER REGULARLY.**

We would urge upon breeders the necessity of giving your poultry good, pure, fresh water at regular intervals, winter as well as summer. While no kinds of stock require so much water in winter as they do during the hot summer months, when the heat abstracts so much more moisture from the body than it does in the wintry months, yet, when fed on dry food, water is an absolute essential, else disease will ensue. When we realize the fact that so large a percentage of all living beings, whether animals or birds, is moisture—water—and so much is hourly thrown off by the heat of the body, we can arrive at some definite conclusions in regard to the needs of animal life in this direction.

We have seen so many fine flocks of fowls which were compelled to exist with what water they could obtain from the snow or some sheltered pool, during the winter, in the barnyard, or else go without till it chanced to rain, that we feel compelled to speak about the matter here, trusting our doing so may be the means of causing all who have thus far neglected this important matter to at once give it their attention, and thus alleviate the sufferings of the birds unnaturally deprived of water each day.—*American Poultry Journal.*

**CARE OF FOWLS.**

Poultry houses should be well whitewashed, and also sprinkled frequently with carbolic acid; size should be mixed with the whitewash, as it then fills up the crevices and minute interstices better, and does not easily rub off. Coops should also be washed over in the same way. The dust baths in summer require to be changed more frequently. In cold weather the various fowl parasites do not flourish so much or increase so rapidly, and therefore the places will not want so much attention. Fowls will never do well unless they are kept perfectly clean, they will keep themselves so if they are only given the proper requisites, and surely if they are profitable and useful to us we need not mind a little trouble taken on their behalf.

HIBERNIAN, after attentively surveying tourist's bicycle: "Arrah, now, an' sure that little wheel will never kape up with the big wan at all!"