

BEES AND POULTRY.**BEES AND FRUIT.**

The idea that bees injure fruit is entertained by many superficial observers, and has led to steps being taken to banish them from the neighbourhood of orchards and vineyards. At a recent meeting of Pennsylvania horticulturists very extravagant things were said by some of the members on this subject. So able a horticulturist as Mr. Meehan took the ground that bees injure vines when in blossom. The North-Eastern Bee-keepers' Association took the matter up at its recent annual meeting, and freely discussed it. It was the unanimous opinion of all present that honey bees *never*, under any circumstances, puncture the skin of the grape or any other fruit. Birds, black ants, and other enemies of fruit, do the puncturing, and the bees, from their gathering the sweetness that is going to waste, get the blame. The Association placed itself on record by adopting the following resolution:—

"Resolved,—After due investigation of well-known and numerous cases, the convention unanimously asserts that the honey-bee never punctures the skins of perfect grapes or any other fruits; but that the sucking of juices from fruits is only from that which has been punctured by other insects, birds, or natural causes."

It is a well-known fact in natural history that bees promote the fructification of plant blossoms, by mixing their pollen; and without their useful offices many kinds of useful fruit would not set at all. Not a few bee-keepers are also fruit-growers, and believe that there is a double advantage secured thereby. The fact is that multitudes of people are so afraid of bees that they do not study their habits, and form hasty conclusions about them which the facts, on being investigated, do not warrant.

HYBRID BEES.

As the name indicates, hybrid bees are the result of a cross between different races or varieties of bees. Most of the hybrid bees in this country are a mixture of the Italian and black or German varieties. If bees are pure Italian, the first three rings or bands of the abdomen are yellow; while if they are blacks, the whole abdomen is black. If a pure Italian queen mates with a black drone, the drones that she produces will be pure Italians, because the drone progeny of a queen is not influenced by her fertilization, but her workers will be hybrids, or half-bloods. A few of them may show the three yellow bands; others may show no yellow bands, being perfectly black; but the majority will, probably, show one or two yellow bands. If a pure black queen mates with an Italian drone, the results will be the same, at least so far as the marking of the bee is concerned.

As mentioned in a former article, hybrid workers show more strongly the characteristics of the race from which came the drone that fertilized their mother. In many instances the workers of an Italian queen that has met a black drone, will behave very much like black bees; while I have seen black queens that have mated with Italian drones, produce

bees that were nearly as easy to handle as Italians; but as a general thing, hybrids, let them be produced in either manner, seem to possess the courage and determination of the Italians combined with the irritability of the blacks. If a pure Italian queen mates with a black drone, and queens are reared from her eggs, they will, of course, be hybrids or half-bloods. The drone progeny of these hybrid queens will be hybrid or half-blood, while the appearance of their workers depends entirely upon whether these queens mate with black or with Italian drones. If they mate with Italian drones, their workers will be three-fourths Italian, while if they mate with black drones their workers will be three-fourths black. Queens reared from a black queen that has met an Italian drone will, of course, give the same results.

This matter of hybridization among bees, simple though it be, is really quite a puzzle to some people. Let such remember that crosses among bees produce the same results as crosses among animals, with the exception that the drones are always like their mother, let her mate with whatever drone she may. If a queen is pure Italian, so are her drones; if she is hybrid, her drones are also.

When Italians are introduced into a part of the country where black bees are plenty, hybrids of all grades will soon become plenty. It is almost impossible to own an Italian apiary in such a locality and keep it free from black blood. It can only be done by destroying the queens that mate with black drones, just as soon as they are discovered. If one keeps bees only for the honey that they gather—that is, if queens are not reared for sale—this mixture of black blood does no particular harm, except that it gives the bees a very irascible disposition. As a rule, hybrids are excellent workers, some of the largest yields of honey reported being gathered by hybrids.

In the fall, after the labours of the season are past, and the bees are preparing for their long winter's nap, their abdomens are shrunk up—that is, the rings are slid farther into each other—and the last ring not showing very distinctly, full-blooded Italians are, at such times, often mistaken for hybrids. I remember, one fall, of marking several hives as containing impurely mated queens, intending in the spring to replace them with purely mated ones; but when the warm weather returned and the bees began gathering honey, their abdomens seemed to lengthen out, and not a hybrid bee could be found in the whole apiary.—*W. Z. Hutchinson in Country Gentleman.*

POULTRY HABITS.

Of all stock, hens are the most easily taught. The education of hens can be commenced at any age, but best when young. They should be housed and shut in every night, and not be allowed to roost on sheds, well-sweeps, or trees. Even a neglect to shut the door on them for one night will cause the timid ones to seek a higher roost the next night, and that can only be found out of doors—a great nuisance, and constant loss from night enemies. At sunrise every morning call the hens around you, and scatter a full feed for them. Let this always be done on

the same spot of ground. Keep in a convenient place a reservoir of clean, fresh water, if you have no running stream. At certain and regular times in the day you will find the whole flock there. Throw no scraps of food around the dwelling, or you will teach them to become a house nuisance. Burn all the egg-shells, or you will teach the hens to eat the eggs in the nests. If you coop your chicks, take hen and brood to the hen-house as soon as the coop is dispensed with; otherwise, when winter sets in, you will have to spend hours every night for a week before they will house well. Protect hens while sitting by a light board or lattice cover to the nest, so that they shall not be annoyed by other hens wishing to lay with them. In fact, any bad habit, or any which does not suit your surroundings, may be entirely broken up and changed by reasonably preventive measures.—*Rural New Yorker.*

RAW MEAT FOR FOWLS.

A writer in the *Poultry Yard* claims that cooked meat is much better for fowls than raw meat. Well, I used to think so too; but now it makes me mad all over when I think of all the time that I have wasted in boiling meat for fowls. Last winter I fed raw meat right straight through cold weather, and my fowls never did better. Of course I don't feed meat that is as tough as a whip-lash, neither do I feed stinking meat. Such stuff, whether cooked or raw, is not fit for fowls; but I get fresh liver, lights, heart, and all, hang up a chunk, and let the fowls help themselves. Sometimes, just for a change, I boil up a lot of bones, but life is too short for me to fool away much time cooking meat that had better be given to the fowls raw.—*Fanny Field.*

INCUBATORS.

Enquiries are often made about artificial hens, or incubators. The "Glass Hen" which was exhibited at the Toronto Industrial and other fairs led many people to think glass better than feathers for chick-hatching. It is questionable, however, if man can improve much on the natural process. A correspondent of the *N. Y. Tribune* says:—

"There are a number of incubators—good ones, too, if properly managed—for sale in Bucks County at a considerable sacrifice. I never invested in one on my own account, and don't think I ever shall. It does not pay any man or woman who has anything else to do to make a 'hen cluck' of him or herself. Many who are enquiring about the incubators and poultry farming have not the slightest idea of what is involved in it. After one has learned to run Brahma and Cochins to their full capacity in the business, then will be time enough to investigate the incubator."

THOMAS DAVIS, of Guelph, has a Dorking hen which is credited with having laid an egg measuring 8x14 inches.

WARMTH in the roosting-places, pure water, gravel, warm food, some animal food and green food, cabbage, etc., are essential to the well-being of poultry in the winter, if you expect plenty of eggs. There is nothing lost in keeping fowls well.