

Top Grafting.

Every year's experience confirms the opinion as to the value of top-grafting. The top-grafted trees have withstood the killing effects of last winter far better than the same varieties on their own trunks. It is only reasonable to expect that a tree that is top-worked on some good, healthy, hardy trunk is in a better position to withstand severities of climate than the same variety grown on its own stem would be.

Then, we get finer specimens and greater productivity. This has been abundantly proved with such varieties as the King, which is known to be such a poor bearer as to be unprofitable to grow, although it sells for the highest price of any Canadian apple. A case in point came under the writer's notice. A man living a few miles away has a small orchard, most of them Kings. Those bear a good crop regularly every year, and the fruit was very fine. This fact, somewhat unusual with Kings, led me to investigate, when it was discovered that they were all Tallman Sweet trunks, and had been top-grafted with Kings when the trees were young, which is the proper time to do it. And the best advice that could be given to intending planters is to plant their orchards with some healthy, hardy stock, such as Tallman Sweet, and top-work them with just a few varieties of the best commercial varieties. If confined to Spy, Baldwin and King, it would be a good selection, for, no doubt, the King can be made profitable when grown in this way.

POULTRY.

Getting Hens to Molt.

Because of its annual occurrence we often cease to regard the molt as an important epoch in a fowl's life, but nevertheless it is an event that means much to the careful breeder, and he who is wise will give the subject due consideration. To throw off the old, dull, faded plumage requires of a fowl an enormous amount of strength and energy, and with fowls that are kept in what, we must remember, are, for the most part, unnatural conditions, the necessary elements of food must be provided that will enable the fowl to build up the new coat of feathers without too much of a drain upon the system.

In preparing fowls for the molting season, the first thing to be done is to separate the males from the females, and if at all possible they should be kept apart until the next breeding season. The male will be a much better breeder if kept by himself until the pens are mated next spring. One reason why so many aged cocks fail to properly fertilize the eggs is because they are "bred out" by being kept constantly with females.

The next thing on the programme is to thoroughly examine the fowls for lice, as usually if there is a louse on them they will increase and weaken the birds just when the molting period requires all their vitality to produce their new suit of clothes. The perches should be built so that they do not touch the walls at any place, for the red mites or lice that do the most harm do not stay on the fowls during the day; they hide in cracks and crannies during the day and come out at night to seek their prey, and if the perches do not touch the walls they will have less opportunity to hide. The red mites or lice may be kept away by simply wetting the perches once a week with kerosene oil, as this is instantly fatal to them. The large gray louse that is sometimes found on poultry lives all the time on the fowl, and must be killed by dusting the fowl with insect powder. This must be repeated at intervals of three days for two or three weeks, in order to kill the lice that are hatched from the eggs that are always among the feathers when lice are present.

After the lice question is settled, the feed and general care is the all-important subject. I have no exact formula to prescribe for feeding molting fowls. During the process the fowls need more animal food than at any other time, and we would advise you to keep animal meal or ground beef scraps constantly before the fowls. Grit, oyster shells, granulated bone and charcoal should be accessible to the fowls at all times. Table scraps and milk in any form make variety. Green food should be supplied every day, and in abundance, for in warm weather the fowls relish fresh vegetables and grass above almost anything else that could be given them, and no food is so conducive to their health and keeps them in such good condition.

We would advise you to not feed the fowls mash during the molting period, as it tends to a looseness of the bowels, and this is not healthful. But if you do feed mash do not under any circumstances mix a lot of cayenne pepper or condition powder with them, as they do a great deal more harm than good. Bear in mind that a healthy fowl requires nothing but good wholesome food. If the fowls do not thrive, the best thing to do is to reduce the food, and give a variety.

Cracked corn, oats and wheat make the ideal summer feed. Our bill of fare is equal parts of coarse cracked corn and oats in the morning, and either wheat or equal parts of wheat and oats in the evening. Sunflower seeds are good to help loosen the feathers, but should be fed sparingly, else they will make the fowls molt too quickly.—[R. B. Sando, in Farm Poultry.]

A pint of kerosene in a gallon of whitewash makes a very good insecticide.

Why Farmers Should Raise Poultry.

The following eight reasons why farmers should raise poultry are given by an English poultry writer:

"Because the farmer ought to convert a great deal of the waste of his farm into money in the shape of eggs and chickens for market. Because, with intelligent management, they ought to be all-year revenue producers, with the exception of perhaps two months during the moulting season. Because poultry will yield a quicker return for the capital invested than any of the other departments of the farm. Because the manure from the poultry-house will make a vegetable compost for use in either vegetable garden or orchard. The birds themselves, if allowed to run, will destroy a large proportion of injurious insect life.

"While cereals and fruits can only be successfully grown in certain sections, poultry can be raised for table use or layers of eggs in all parts of the country. Poultry-raising is an employment in which the farmer's wife and daughters can engage, and leave the farmer free to attend to other departments, and it will bring him the best results in the shape of new-laid eggs during the winter season, when he has the most time on his hands. Finally, to start poultry-raising on the farm requires little or no capital. By good management poultry can be made with little cost a valuable adjunct to the farm.

A hen eats and digests more food in relation to her size than any other known animal. Not even the enormous elephant, with its prodigious appetite, eats more, pro rata, than the busy little scratching hen, whose value, estimated last year by the U. S. Government, in that country amounts to over one hundred and thirty-six million dollars (\$136,000,000), and whose product yielded one hundred and forty-four million dollars (\$144,000,000). This year's poultry earnings would buy all the milch cows in the United States, and leave a handsome margin.



The above electro is from a photograph of five sheep from the Dorset Horn flock of Lt.-Col. McGillivray, Dum-na-Glass Farm, Uxbridge, Ont., each of them a first-prize winner in its class at the late Exhibition held in Toronto, and comprising in the number both the sweepstakes ram and sweepstakes ewe.

APIARY.

Preparing for Winter.

After having the right blood to winter to the best advantage there is the question of hive. Upon this not much will be said by me, and argument of no profit might arise. Twenty-odd years of beekeeping, correspondence, and contact with many beekeepers, has convinced me that bees may be wintered in almost if not every hive in use, providing the conditions are right otherwise. A perfect cellar in our Canadian climate will always be ahead of the best outside conditions obtainable. I am convinced of this, and many more have learned this by sad experience last season. But I wish to speak of the condition of the brood chamber. The combs of the hive should be right. Crooked combs, which have been changed from the relative position in which they were in when built, are not desirable at any season of the year, not even in winter. One of many advantages in the use of full sheets of foundation is straight combs, which will maintain a proper bee space, no matter where put. Colonies with combs giving, owing to crookedness, twice the bee space on one side and none on the other, hinder the stock from doing its best, and may even lead to dissatisfaction and swarming out.

Combs clogged with pollen, sometimes due to the colony having been queenless for an abnormal time, should be removed. These conditions should be looked to. Now contract, as soon as the brood latches sufficiently, the brood chamber to the size the bees will

cover comfortably, and to give them sufficient room to hold the stores needed for winter and early spring. Each good colony should have not less than 25 pounds of stores for winter and spring. Weaker colonies require slightly less, but not much. Feed granulated sugar, and get the best. The kind found upon the market, which when boiled shows bluing, and, in fact, some of the sugar shows it in the barrel, avoid, yes, more, do not use it, even if it is bounty fed.—[Holtermann, in Bee Journal.]

EVENTS OF THE WORLD

Mount Pelee is again in a state of eruption.

A reorganization which will increase the army to 1,000,000 men has been inaugurated by the Japanese.

A number of revolutionary pamphlets issued by Jews have been seized at Kishineff, Gomel, Odessa and Vilna.

The town of Glouss, in Southern Russia, has been destroyed by fire, and 500 families are without shelter or food.

Several wrecks occurred off the coast of Newfoundland during disastrous gales which swept the Atlantic coast recently.

Despatches from Thibet state that the British troops are enduring great hardships on their return march towards India.

Prince Mirsky, the new Russian Minister of the Interior, has dismissed the ninety detectives which formed the bodyguard of the late M. Von Plehve.

Preparations are being made for opening up an all-Canadian route to the Yukon.

A pack trail will be constructed through to the Pelly River, from which point navigation can be had with Dawson.

Admiral Fanshawe, commanding the Australian squadron, has ordered two warships to proceed to Torres Strait, north of Australia, to warn the Russian warships, reported to have been seen cruising in that vicinity, against committing any breach of international law.

Count Okuma, leader of the Progressive Party of the House at Tokio, has warned the people to prepare for a long war. He predicts that the cost to Japan of a two years' war will total one billion dollars. Retrenchment of expenses is being made in all departments in Japan, in order that the war fund may be augmented.

Six railway men have been asphyxiated in the great St. Clair submarine tunnel, which connects Sarnia and Port Huron. The accident was due to the breakage of one of the couplings, which caused the train to part, all but three cars being left in the tunnel. The first rescue party nearly all succumbed to the deadly gas, and it was with the greatest difficulty that the bodies were removed.

The latest news from Manchuria is that the Russians have at last assumed the offensive, and that, so far, they have been successful in driving the Japanese back in several skirmishes in the vicinity of Yentai. Otherwise there is little news. In the south the bombardment of Port Arthur has not been renewed since its cessation on Sept. 25th, and although enteric fever is said to have broken out within the walls, General Stoessel is reported cheerful and hopeful.

A detachment of Portuguese troops, consisting of 499 officers and men, operating in Portuguese West Africa against the Cuanhamas, was surprised at night by the tribesmen while crossing the Cunene River, and suffered a loss of 254 killed, including 15 officers, and 50 wounded. The Government is considering the organization of 5,000 men to suppress the revolt, and will despatch warships to the vicinity. It has also been officially announced that Germany will send 8,000 European troops against the rebellious Hereros, who are neighbors of the Cuanhamas.