Early Chicks.

BY JOHN B. PETTIT.

Too much importance cannot be attached to the necessity of having early chickens in order to have the greatest success and profit in the poultry industry. Those who are in the habit of getting out early chickens know this by experience, while those who are not should try it for once the coming season and see if they do not learn the truth of the statement.

No matter what one is in the poultry business for—whether for eggs, broilers, or fancy birds—the early chicken is the most profitable one. The majority of us are in it for what we make from the sale of eggs produced by the hens and the rale of surplus cockerels for table use. It has been found that it is much easier to start pullets to laying before winter than it is after very cold weather sets in. We, therefore, should try to get our pullets matured and into laying condition by the first of November, and, if possible, in the latter part of October. Taking the heavier breeds, such as Rocks, Brahmas, Cochins, and Wyandottes, the greater number of the pullets do not begin to lay before they are about seven months old. In order to get them at work by the time mentioned, the chicks should be hatched as early in April as possible. It is not necessary to get Leghorns and other light breeds out quite so early, as they come into maturity much more quickly. It is no uncommon thing for well-grown Leghorn pullets to begin laying before they are five months old. So we could hatch this breed out in early June and still have pullets into laying condition by the latter part of October or first part of November; but it would be better to get all chicks of even these lighter breeds out not later than in May. Leaving the egg problem, let us go to the birds that we have to dispose of for table use. We are all very well aware of the fact that all kinds of dressed poultry are much higher in price during early summer than on later in the fall. It stands in hand, then, for us to get our chicks out good and early, so that those that have to be marketed will be of good size when dressed poultry is at its highest price.

If we are so fortunate as to have fowls of such a quality as to be able to compete in the leading poultry exhibitions and carry off but a few of the highest awards, then we should see that we get our chicks out real early and get our exhibition birds fully developed. Often a cut of a point or two will be made for undersize or underweight, and often this—what seems at first thought but a slight cut—is the cause of some of our opponents carrying off the honors that we had hoped and worked so hard for. Other things being equal, the well-developed bird always wins in competition with one not properly matured.

Chickens make more rapid progress if hatched before the extremely hot summer days set in. Besides the heat affecting them physically, it also promotes a very rapid increase of lice, and there is nothing that retards the growth of chicks more than lice. Gapes are also more prevalent in hot weather than they are during the earlier part of the season. By getting our chicks out early, we will get them up to a good size and they will be in better condition to resist these drawbacks when they come to them. But we must exercise caution and not get our eggs hatched too early, if we want early winter layers. Pullets, if hatched out too early, will moult during the same fall, and that will put an end to their egg production until the following spring. They would then be but a bill of expense during the whole winter.

By exercising a little caution, we can manage our flocks in such a manner as to be much more profitable to us, and this by having early chicks, early broilers, and early winter layers.

GARDEN AND ORCHARD.

Does Fumigation Injure Trees?

Regarding the alleged injury to nursery stock by fumigation, I may say that if trees have well-ripened wood and are in a dormant condition at time of treatment, there is no injury by the hydrocyanic-acid-gas treatment. Trees may be injured, though, if they are treated before growth has stopped in the fall or after they have budded out in the spring. Our experiments have proved that well-matured dormant trees will stand three times the prescribed dose without injury. My experience in this work during the past three years confirms me in the belief that much of the injury to trees said to be due to fumigation is the result of frost, and of exposure during handling in the nursery, and of delay in shipment.

W. N. HUTT,
Inspector of Fumigation.

Welland Co., Ont.

Spraying Mixtures.

Bordeaux Mixture.—Dissolve four pounds of copper sulphate in forty gallons of water, and add four pounds of fresh lime. Strain out the lime and test for proper strength with ferro-cyanide of potassium. If the lime is deficient, a few drops of the cyanide will turn brown in the Bordeaux, when add more lime till the cyanide, when dropped in, remains colorless.

Copper Sulphate Solution is made of one pound of copper sulphate dissolved in twenty-five gallons of water, and is for use only before foliage appears.

Paris Green.—For fruit, add four ounces to forty or fifty gallons of water, and for potatoes, add six to eight ounces to forty or fifty gallons of water. The Paris green may be added to the Bordeaux mixture the same as water, and thus apply the fungicide and insecticide together.

Hellebore.—Mix fresh white hellebore one ounce with three gallons of water.

Kerosene Emulsion.—Dissolve half a pound of hard soap in one gallon of boiling water; remove from the stove and add two gallons of coal oil, and churn until it becomes of a thick creamy consistency. Dilute with water, about twenty times its bulk, for use.

Lime and Sulphate.—It is desirable to dilute both the lime and sulphate before mixing, and especially important that the sulphate be poured into the lime, and not the lime into the sulphate. --F. A. Waugh.

Arsenite of Lime.—This insecticide is coming more into popular favor yearly, and is worthy of it. Arsenite of lime is at least one-half cheaper than Paris green, is equally efficient, and will not burn the tenderest foliage at the strength ordinarily applied. To make 800 gallons of spraying mixture: White arsenic, 2 pounds; sal. soda, 8 pounds; water, 2 gallons.

"A Visit to Old Friends."

I would like to know if it is possible to get a copy of the picture in the Christmas number of the "Farmer's Advocate," entitled, "A Visit to Old Friends"? W. L. A.

Ans.—Write the painter, Mr. Paul Wickson, Paris, Ont.

Spraying Calendar.

(Recommended by Spramotor Company.)

PLANT.	1ST APPLICATION.	2ND APPLICATION.	3RD APPLICATION.	4TH APPLICATION.	5TH APPLICATION.	6TH APPLICATION.
Apple Scab, codling moth, bud moth.	When buds are swelling, Bordeaux, copper sulphate solution and Arsenites.	*Just before blossoms open, Bordeaux. For bud moth, Arsenites, when leaf buds open.	*When blossoms have fallen, Bordeaux and Arsenites.	10-14 days later, Bordeaux and Arsenites.	10-14 days later, Bordeaux and Arsenites.	10-14 days later, Bordeaux and Arsenites.
Cabbage and Cauliflower Worms, aphis.	*When worms or aphis are first seen, Kerosene emulsion.	7-10 days later, if not heading, renew emulsion.	*7-10 days later, if heading, hot water (130° F.) or Hellebore.	Repeat third in 10-14 days if necessary.		
Celery Leaf blight, rust.	*Ammoniacal copper carbonate at first appearance of disease.	Repeat first to keep foliage protected.				
Cherry Rot, aphis, slug.	As buds are breaking, Bordeaux. When aphis appears, Kerosene emulsion.	When fruit has set, Bordeaux. If slugs appear, Hellebore.	10-14 days, if rot appears, Ammoniacal copper carbonate.	10-14 days later, Ammoniacal copper carbonate.		
Currant Mildew, worms.	*At first sign of worms, Arsenites and Bordeaux.	10 days later, Hellebore. *If leaves mildew, Bordeaux.	If worms persist, Hellebore.	After fruit is harvested, apply Bordeaux freely.		
Gooseberry Mildew, worms.	*When leaves expand, Bordeaux. And for worms as above.	*10-14 days later, Bordeaux. For worms as above.	*10-14 days later, Ammoniacal copper carbon. For worms as above.	*10-14 days later, repeat third.		
Grape Fungous diseases, flea-beetle.	In spring, when buds swell, copper sulphate solution. Paris green for flea-beetle.	*When leaves are 1-7½ inches in diameter, Bordeaux. Paris green for larvæ of flea-beetle.	*When flowers have fallen, Bordeaux, Paris green as before.	10-14 days later, Bordeaux.	10-14 days later, if any disease appears, Bordeaux.	10-14 days, ammoniacal copper carbonate. Make later applications of this if necessary.
Nursery Stock Fungous diseases.	*When first leaves appear, Bordeaux.	*10-14 days, repeat first.	10-14 days, repeat first.	10-14 days, repeat first.	10-14 days, repeat first.	10-14 days, repeat first.
Peach, Nectarine, Apricot Brown rot.	*Before buds swell, copper sulphate solution.	Before flowers open, Bordeaux.	*When fruit has set, repeat first.	10-14 days later, repeat.	*When fruit is nearly grown, ammoniacal carbonate.	Repeat five at intervals of 5-7 days if necessary.
Pear Leaf blight, scab, psylla, codling moth.	As buds are swelling, copper sulphate solution or Bordeaux.	*Just before blossoms open, Bordeaux; Kerosene emulsion when leaves open for psylla.	*After blossoms have fallen, Bordeaux and Arsenites; Kerosene emulsion if necessary.	*8-12 days later repeat third.	10-14 days later, Bordeaux, Kerosene emulsion applied forcibly for psylla.	10-14 days later, repeat fifth, if necessary.
Plum Fungous diseases, curculio.	*During first warm days of early spring, Bordeaux for black knot. When leaves are off in the fall, Kerosene emulsion for plum scale.	*When buds are swelling, Bordeaux for black knot and other fungous diseases. During mid-winter, Kerosene emulsion for plum scale.	*When blossoms have fallen, Bordeaux. Begin to jar trees for curculio. Before buds start in spring, Kerosene emulsion for plum scale.	*10-14 days later, Bordeaux. Jar trees for curculio every 2-4 days. For San Jose scale, Kerosene emulsion when young appear in spring and summer.	10-20 days later, Bordeaux for black knot. Jar trees for curculio. When young plum scale insects first appear in summer, Kerosene emulsion.	10-20 days later, Bordeaux for black knot. Later applications may be necessary to prevent leaf spot and fruit rot, use Ammoniacal copper carbonate.
Potato Scab, blight, beetles.	*Soak seed for scab in corrosive sublimate solution (2 ozs. to 16 gals. of water) for 90 minutes.	*When beetles first appear, Arsenites.	*When vines are two-thirds grown, Bordeaux; Arsenites for beetles if necessary.	10-15 days later, repeat third.	10-15 days later, Bordeaux if necessary.	
Quince Leaf and fruit spot.	When blossom buds appear, Bordeaux.	When fruit has set, Bordeaux and Arsenites.	10-20 days later, Bordeaux.	10-20 days later, Bordeaux.	10-20 days later, Bordeaux.	
Raspberry, Blackberry, Dewberry Anthracnose, rust.	Before buds break, copper sulphate solution, Bordeaux. Cut out badly-diseased canes.	During summer, if rust appears on the leaves, Bordeaux.	Repeat second if necessary.	Orange or red rust is treated best by destroying entirely the affected plants.		
Rose Mildew, black spot, red spider, aphis.	*For mildew, keep heating pipes painted with equal parts of lime and sulphur mixed with water to form a thin paste.	*For black spot, spray plants once a week with Ammoniacal copper carbonate, using fine spray.	*For red spider, spray plants twice a week with Kerosene emulsion. Apply to under side of foliage.	For aphis, spray affected parts with Kerosene emulsion when necessary.		Kerosene emulsion must be used very dilute, as rose foliage is easily injured by it.
Strawberry Rust.	When growth begins in spring, Bordeaux.	*As first fruits are setting, Bordeaux.	As first fruits are ripening, Ammoniacal copper carbonate.	*When last fruits are harvested, Bordeaux.	Repeat third if foliage rusts.	Pepeat third if necessary.
Tomato Rot, blight.	As soon as disease is discovered, Bordeaux or a clear fungicide.	Repeat first at intervals 7-10 days.				

*The most important applications. Add Paris Green to Bordeaux Mixture for plums after blossoms have fallen.