

The term of incubation will depend somewhat upon the temperature of the water in which they are placed. Eight weeks is the usual time in water at 42 degrees Fah. After the young fry leave their eggs they may be suffered to remain for a few days in the pool or hatching boxes or they may be removed at once into small tanks or boxes having fresh water running through them and guarded by fine wire screen. A box 3 x 2 x 1 foot deep will do for 1,000 or 2,000. When two months old they may be placed in a pool of water fed by a good spring. This should have a nice clean gravelly bottom, with some large stones thrown in. The pool is better shaded from the rays of the sun.

The young fish need no feeding for about one month after they leave the egg. After that time lean flesh of animals or liver should be fed to them, hashed up very fine. When a year old they are ready for the pond or stream, where occasional feeding once a week or so is advisable. Newly constructed ponds provide very little food, and, hence, more must be supplied, but old ponds usually contain snails, leeches, crawfish, etc., in considerable quantities. The old trout should be kept in the lower ponds as far as practicable to prevent them devouring their younger brothers.

We believe it is the custom of most men who rear trout to purchase the fry about April 1st, of last year's hatching, which is about the right time to give them the liberty of the pond or stream. It is essential that all ponds for trout have connection with a stream having considerable current, as trout will not live in a stagnant body of water. Another point to be remembered is that seldom more than fifty per cent. of the fry live to become marketable fish.]

#### SANFOIN CLOVER.

REV. DR. J. P., Middlesex Co., Ont.:—"Since the practice of summer soiling has become so advantageous, I would like to learn through the columns of the FARMER'S ADVOCATE something of sanfoin clover as a food for dairy cows."

[While sanfoin clover has been grown successfully and extensively for many years in various parts of Europe, it has, as yet, received very little attention in this country. It is a perennial usually sown in the spring, alone or along with a cereal crop. It is peculiarly suited to chalky or sandy soils, and has in some of the poorer portions of England improved the character of the soil from being a poor waste to a fertile section. It is said to be readily cured, and equals any other clover in flesh and milk producing qualities. It roots deeply and produces two abundant crops in a season. While no harm and possibly much benefit may be derived from testing a patch of sanfoin this coming season, we would have no hesitation in recommending the sowing of a field of lucerne, as it has been proved a great success in Middlesex and other Ontario counties, as a soiling crop. Sanfoin seed is large and weighs 25 pounds per bushel. It should be sown from 3 to 4 bushels per acre, a little deeper than other clovers. Lucerne should be sown 12 to 15 pounds per acre, and should be sown alone on very clean land or along with a cereal crop, as red clover is sown.]

#### WHEN TO REMOVE WINTER PACKING.

A. B. GINER:—"I have nine colonies of bees on the summer stands, packed as follows: In the fall, on the approach of cold weather, I removed the super, put a 4-inch board over the brood-chamber, the size of the outside of the hive, then put a box over all, four inches higher and two inches larger on all sides than the hive, filling the sides and cover the brood with sawdust, and putting a rain-proof cover over all. When should I remove the packing and put on the quilt? Also, should I have put on the quilt last fall? Do you think the quilt is sufficient protection over the brood-chamber in this climate?"

[Better leave the packing on too long rather than remove too early. If you know the bees have plenty of stores, and they appear to fly strong in numbers, there may be no need to remove the packing till about the time you want to put on supers. At any rate, leave it till fruit-bloom, unless there be some special reason to the contrary. Opinions differ as to leaving on the quilt in winter, perhaps the majority removing it. A quilt is usually well covered with propolis, and gives little chance for absorption or upper ventilation. But with strong colonies and abundant opening below, there may be no need of upward ventilation. With everything glued up tight overhead, if the entrance is very small the bees will not get enough air, but the tendency nowadays seems rather toward larger entrance below without so much regard to what is above.—Am. Bee Journal.]

#### WASTING DISEASE IN HENS.

B. C. SUBSCRIBER:—"For some time I have been regularly, about once a month, losing a hen from some disease that I cannot get to the bottom of, and I am writing to know if you can help me. They show no sign of any disease that I can find in any book on poultry. They begin by looking dull and listless and seem daily to get weaker and weaker and lose all flesh until they are mere bags of bones, and then generally in about a fortnight or three weeks I find them dead. Some scour, but as many do not. Their appetite remains good to the last. They have unlimited run. I feed a warm mash of pea and oat chop mixed with bran and shorts in the morning and whole wheat in the evening. They have a good warm house, are kept clean, and have fresh water every morning. Still

one at a time they keep dying off all the year round—sometimes a hen, sometimes a pullet. I have given Sheridan's condition powder and Sturtevant's egg food without any good results. If you can tell me how to stop the mortality I shall be very much obliged."

[Your fowls have been dying with consumption or lung disease. If you have one so affected at present kill it and you will find, if dissected, a wasting away of the lungs. A great many fowls die every year with this disease. In most of the fatal diseases there is a poisonous fungous growth in the blood. Fowls never perspire and the heart beats one hundred and fifty times per minute, so that diseases that are easily thrown off by perspiration, with them have to be exhaled by respiration, and as a result we find the seat of nearly all the fatal diseases to be in the head, throat, and lungs.

Causes.—In-and-inbreeding, a poorly ventilated house, unwholesome food, or from the effects of roup or distemper.

Treatment.—Our advice to subscribers would be to kill all fowls so affected and breed only from the healthiest specimens and those known to have a strong constitution.

L. G. JARVIS,  
Ontario Agricultural College. Poultry Supt.

#### BARN BUILDING ESTIMATES.

W. C. H., Prince Edward Co.:—"Through your valuable paper please give an estimate for building a barn 30 x 60 feet and 18 ft. posts? Not the material, except paint. The masonry 30 x 60 x 8 feet, and only 18 inches on the south side? The carpenter work, framing, building and finishing off, etc.? Now the painting, cost of two coats and putting the same on? What kind, mixed in what proportions? Would you use any cement in paint? Would it not be better to mix the paint some time previous to using? The shingles are cedar and siding matched."

[Mr. Finlay Fraser, an experienced framer, makes the following reply to the above: "In reply to W. C. H., would say his question is not definite enough to give a close estimate. If his barn is a common barn, four bents and stable below, the framing work would cost about \$130, provided inquirer saws girts and rafters. The masonry would be worth 50c. a perch (16) cubic feet, counting corners twice, mason to get half the openings—doors and windows. Am not posted about painting. For convenience, would recommend him to paint gable before it goes up, giving it time to dry before framer uses it. Above estimate does not include board."

Isaac Usher & Sons, Queenston, Ont., write:

"Re cost of building as per enclosed slip:—  
The walls would require say 36 barrels cement, at \$1.25. \$45 00  
Labor, 30 days, at \$1.00. 30 00  
(40 yards gravel.) 75 00

Good concrete floor, whole building (floor to be 4 inches thick), 32 barrels cement, at \$1.25. \$40 00  
Labor, 13 days, at \$1.00. 13 00  
(22 yards gravel.) 53 00

"This estimate is taken from figures kept by farmers who have put up their own buildings, and is as nearly correct as possible, and includes labor and cement, as cost of gravel and stone depends on the locality."

With regard to painting, we recently looked over two large, fine barns painted with two coats Venetian red and oil, and learned that the contracts had amounted to about three cents per square yard, doors and windows in basement included. The jobs cost \$80 and \$90 each, respectively.

The Canada Paint Co. write: "Measurements are not very clearly expressed, but we understand the surface to be painted, 30 x 60, being 180 feet around by 18 feet high, making some allowance for gables, this being of planed wood requires for two coats fifteen gallons of prepared paint. The roof represents about the same area, but being of sawn shingles would take a much larger quantity, probably twenty-five gallons for two coats. It is just possible your correspondent might wish to stain the roof instead of painting. This gives a more handsome appearance and is done in moss green or in variegated colors, but stain covers less surface owing to absorption, and it would probably take forty gallons to thoroughly coat the roof. In reference to cost, the paint might be reckoned upon to cost \$1 to \$1.20 per gallon, according to quality. The stain would cost 60c. per gallon, so that the cost of the work would be about the same whether painted or stained. Both coatings would be ready for use and would not contain cement, which we consider objectionable. The cost of applying would depend upon the locality and had better be ascertained on the spot. Any paint dealer in your correspondent's district would furnish him with all information."

#### ORIGIN OF DUROC-JERSEY HOGS.

A SUBSCRIBER, Wentworth Co., Ont.:—"I wish you or some of your readers inform me where the Duroc-Jersey hog originated? Has it any claims over other breeds for early maturity or rapid growth? (2) Why is it that when a hog gets heavy shoulders and short shanks, it is sold at the same price per 100 pounds as a hog with narrow-backed ones will on the same day? Is one eighth of a cent difference in price worth a fair live hog to a packer, you can see that you will receive until they are weighed and re-weighed to determine if the difference is

too fat, or too heavy, which we think at times depends on the kind of pickle the packer has been in or the quality of the smoke he has had just previous to the arrival of the farmer with his load of hogs. But all the same it may make a difference of fifty cents a hundred to the farmer."

[(1) The origin of the Duroc-Jersey breed of hogs is not positively known. They can be traced back over half a century as having been bred in New Jersey during that period of time. Some claim them to be descendants of the Jersey Red and Red Berkshire. Others believe they are from the Jersey Reds and Durocs. The Jersey Reds had large bodies and were coarse in bone, hair, and flesh. The Durocs were finer in the bone and carcass. The name Duroc was given them by Mr. Isaac Frink, a Saratoga Co. (N. Y.) farmer in 1823. An enthusiastic Duroc-Jersey breeder once claimed that they were "the best general-purpose hog in the United States, being the only hog that would make their own bed, grind their own food, and when fat carry their own carcass to market." They are of medium to large size and capable of making a heavy growth, 500 and 600 pounds being not uncommon, and are considered hardy and of good constitution. We judge they have strong claims to early maturity, and if bred with a view to meeting the demands of the market are a very useful breed, standing on strong legs and capable of making good weights at an early age. They are evidently gaining favor in sections of the United States and Canada where they are well-known.

(2) Buyers do not always make a fair discrimination in prices for the class of hogs the packers call for, and sellers are too much at the mercy of the unscrupulous dealers; but, as a rule, when prices are ruling strong and the seller has the most desirable quality and weights to offer, he should not submit to terms which do not recognize the merits of the product he places on the market.]

#### PLASTER FOR CLOVER.

JOHN BRIGGS, Bruce Co., Ont.:—"Is land plaster good to produce a growth of clover on stiff clay soil having the vegetable mold burned off?"

[The above inquiry does not indicate whether the clover is of last year's sowing, and a greater luxuriance of growth is desired, or a catch is wanted from this year's sowing. If the former is the case, plaster sown right away will in all probability do good, as it will liberate potash, an element much needed by clover, which is frequently in an insoluble condition. If the seed is being sown this spring, the plaster would not be likely to assist greatly in getting a catch. A much better plaster would be to manure the land in some way this summer, either by plowing down a green crop, such as buckwheat, rape, etc., or by applying farmyard manure, and seeding down next year. It will pay to start right.]

#### MARKETS.

##### Toronto Markets.

During the past month cattle have advanced a little, paying a small profit for raising and fattening. The market is fairly brisk and prices unchanged, though firm; buying for Buffalo was fairly active; about five carloads taken to Montreal.

Report Cattle.—The market here to-day was fairly active and prices about 1c. higher, but a sharp advance on a small run nearly always leads to a big decline on a large supply. The general demand was good; the off grades sold slowly at poor prices, but poor quality kept down the price; 34c. to 4c. per lb.; two choice loads fetched 44c. per lb. Cattle advices from Liverpool to-day reporting actual sales of Canadian cattle were encouraging to shippers, as they showed a small profit; this steadied the market, and all stock sold early.

Butchers' Cattle.—In spite of repeated warnings quite a few inferior cattle on offer, some very hard to sell, but everything choice sold early from 3c. to 34c. per lb., while common sold down to 22c. Buyers from Montreal say that there is likely to be a scarcity down East all this summer, as they look to this market for their supplies; they are willing to pay 34c. per lb. for the right class of cattle. A few outside buyers were on the market.

Stocks.—This market was fairly active, and all sold at fairly good prices. Buffalo buyers are willing to pay 3c. per lb. for fancy steers. The demand is likely to continue until July, which may see the Dingley Tariff Bill enforced.

Feeders.—There was quite a brisk demand from two or three of the stock farms near Galt and Woodstock. The distillery byres also wanted a few to fill vacancies. Prices ruled at 34c. for the general run, averaging from 1,000 to 1,100 lbs., up to 34c. per lb. for choice; half fat steers wanted.

Bulls.—There were not many offered; a good demand. Choice bulls for export, 34c. to 34c. per lb.; one sold at 4c. per lb. Stock bulls were quiet at 24c. to 3c. per lb.

Sheep.—Moderate demand; rams selling at 24c. to 24c. per lb.; ewes at 3c. to 34c. per lb. This is a shade better than last week.

Lambs.—There is a good demand for the right kind of lambs, weighing from 90 to 110 lbs., grain fed; if heavier, will not fetch the highest price. Prices ruled from 42c. to 54c. per lb.; all on offer sold early; choice lambs wanted; prices are strong, at a slight advance; 54c. offered at the close of the day for any kind.

Calves.—About everything sold before noon, but dealers complain of poor quality; some sold down to as low as \$2.50. The ruling prices for choice veals were \$4 to \$6 each.

Milk Cows and Springers.—Anything choice in newly-calved cows or well-fed springers sold readily at \$30 to \$35 each. Poor stock hard to sell; some went as low as \$18 each.

Hogs.—The run was fairly heavy and the market firmer; prices advancing to 44c. per lb. for choice selections of bacon hogs, all kinds wanted except stores. Thick fat and light hogs averaged at 44c. per lb.; sows at 34c. to 4c. There is every probability of a shortage this summer, so many farmers have gone out of the hog business; light supplies must run up price up next week to 44c. for the best. Other grades are strong, but as yet unchanged; prospects are good for an advance.

Pigs.—Pigs were offered in moderate supply; demand good. Choice hogs, weights in farmers' loads sold at \$6.25 to \$7.00; the rest, about \$1 less for heavy. There has been a considerable increase in the provision trade all round. Long, heavy hams have been offered again, sales of car lots being made at 10c. and 11c. also higher; heavy hams at 10c.;

Wheat, sold at 62c. a waiting 57c. for wh. Barley, 44c. Oats, 34c. Peas, 44c. Hay, 14c. Straw, 14c. Baled 14c. quoted from delivered 14c. Eggs, 14c. off a little. dozen, 14c. Butter, steady, and 15c. to 16c. cumulation well; best Cheese, 14c. lb., and fat Hides, 14c. owing to lately. Pul combings, 20c. to 21c. ported the 1 green, 7c. 8c. cured, each

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