he relative size is well reare all of the same variety, s to date were summarized rector of the Station, who weaknesses of the experiknowledge, as well as to rought out:

trees have made much inpruned or the summer summer-pruned and the earing fruit since 1915. y to make new growth ly pruned trees is there es would indicate. The n much later in cor 5 only 3 pounds of fruit 127.7 pounds for the sum oounds for the unpruned 19 and those intervening een practically the same barely started to bear ned and unpruned trees ness each season. The nade considerably more trees and have practicoruned trees except in the where the unpruned trees mer-pruned trees. The uned trees while having e more growth than er of the other systems on the whole becoming dense, which increase materially the difficulty cost of spraying, etc. e are indications also the fruit is falling off lor, due to the dense This density of th varies, of course, with variety, the Spy being thick and bushy, while

lean badly from the iling wind, due to the ance offered by their ecked growth. n the light of our presknowledge of pruning be seen that this exent as outlined in 1914 several objections, In rst place the consensus pinion from various ng experiments seems to nat so-called summer ng given at the time that h has practically ceased uivalent in its effect rmant or winter prun-If this is so, then our rison between heavy rmant pruning vs. no rther defect, which is g has not been taken of these well-founded course, incomplete as erable value. In view it, annual pruning just ape of the tree to allow and to keep out all ms, therefore, to be the e young orchard until earing age is reached more severe so as to wood each year. What will, of course, vary

Duchess are quite open

these varieties, how-

by Mr. Palmer is well ion, which shows two and one of Wealthy, aller or Wealthy tree g a good crop and the hick or dense. The g, shows a very dense at this variety needs



uning least size on account ved. They were

much more pruning even while the trees are young than the less vigorous growing varieties. Unpruned trees of this and similar varieties would have to be cut back to heavily when bearing age is reached in order to bring

them back into shape. From this experiment it is therefore apparent that nmer-pruning in July does not necessarily have any effectin bringing the orchard into bearing earlier and has possibly a deterrent effect as compared with a very light shaping of the tree. We are informed by Mr. Palmer that the theory of summer-pruning in July has also been experimentally disproven elsewhere, by virtue of the fact that instead of fruit buds being ned during the summer of the preceeding year to which the crop is borne, they are really formed before the fruit sets for the previous crop. That is to say, the fruit buds for the crop of 1921, will have been formed beyond any possible interference by the grower, before the fruit sets on the trees this spring. We understand this to have been worked out chemically and practically by two independent investigators in the United States and that it has been proven if the blossoms are removed from part of, say, a Wealthy tree, that tree will normally give a fine crop the following year, but if the young fruits on the other part of the tree are removed shortly after they are set, no fruits will be borne by those spurs the following year.

Six acres of orchard is again being planted at Vineland to Spy, McIntosh, Baldwin, Duchess and Wealthy for the purpose of investigating more fully the question of pruning. Each variety will be given six different kinds of pruning as follows: 1, No pruning at all; 2, light, dormant prunings; 3, moderate, dormant pruning 4, heavy, dormant pruning; 5, no pruning to the bearing age, followed by sufficient pruning to bring the tree shape; 6, no pruning until five or six crops have been borne, followed by sufficient pruning to bring the tree into shape. In this experiment information is sought that will prove conclusive as to the treatment of both young and mature trees.

POULTRY.

Constructing the Colony House.

For the farm flock, especially in the summer, there is a considerable advantage in the portable or movable house for the growing chicks, although the same advantage does not exist with regard to the laying flock. The laying flock is, as a rule, housed in a house that is permanently located at some convenient place near he barns and stables so that the work of caring for and feeding them may be done with the least extra labor. During the summer months, however, the growing chicks should be given the opportunity of plenty of free range and if the hopper method of feeding is followed the flock may be placed on almost any part of the farm without requiring an undue amount of extra labor to care for them. For this reason movable houses are found very convenient and the colony house that is provided with skids and can be moved from place to place on the farm is steadily becoming more popular.

Colony houses may be of the permanent type, but when built for farm use they are usually of the movable type on account of their convenience. One of the troubles to be contended with in keeping poultry housed in permanent houses is the difficulty of keeping the land sweet. It is becoming more and more recognized among successful poultrymen that a change of soil is frequently necessary for the best success with the flock. As mentioned before, for reasons of economy it is not always possible to move the laying flock about, but with the growing chicks it is different and there is no reason why, where 75 or 100 chicks are raised annually, there should not be one or more colony houses available: to provide them with the means of getting a wider range over the farm. The soil about the barns and buildings will thus be left longer in a satisfactory con-

dition for the laying flock to range over. Speaking of the advantages of the movable colony house, F. C. Elford, Dominion Poultry Husbandman With the movable house the yards can be cha at will, the poultry may be housed in one field after another and thereby instead of the poultry becoming a nuisance they become a decided advantage. They help scatter fertility over the farm. One can thereby have a rotation—poultry and farm crops—and each helps the other. Where poultry is used in combination with a fruit farm the houses can be moved along the edge of the orchard. These houses can also be used most advantageously with ordinary farm crops and especially with corn, roots, etc. In growing grain young chicks are easily reared while being housed along the headland, or in a rough part of the field in movable houses. The grain forms a protection against the hawks etc., and any little damage that may be done to the grain is more than made up for by the bugs and

"An added advantage in this method is that a comparatively small outlay is required to start. Sufficient house room to accommodate the present flock only, is required; additional houses can be built each year as the increase in the flock demands. Feed that might otherwise go to waste can be utilized. More advantage of the weeth of the weather can be taken. In the spring the poultry house can be drawn into the sun and as the weather becomes too warm it can be taken to the orchard or bluff, where the trees will shade the birds from the hot

With movable houses fences are not essential while a permanent house requires a permanent yard the form the fencing of which frequently costs as much as the house. Colony housing makes it possible to use a system of feeding that saves labor. Where the hens

have an unlimited range they can be fed by the hopper system better than when they are varded. This method of feeding saves much labor and can be used to advantage with the colony housing."

THE FARMER'S ADVOCATE.

The following specifications are for a movable house 8 by 12 feet in size, with a front elevation of 7 feet and a height in the rear of 4'6": Plate, two twelve-foot pieces of two by four scantling; sill, two twelve-foot pieces and two eight-foot pieces of two by four scantling; studs, 7 pieces 4' 6", 6 pieces, 6' 8", 2 pieces 6' 2", 2 pieces 5' 4", and 2 pieces 4' 10", all of two by four scantling; rafters, 7 pieces 8' 3" of two by four scantling; skids, 2 pieces 13' of 6"x6" scantling; roof boards, 121 square feet of inch boards; floor boards, 96 square feet of inch, tongued and grooved flooring; shingles, 121 square feet; boarding 313 square feet of tongued and grooved boarding for sides; building paper, 100 square feet; three windows, glass and wire mesh, 1'8" x 3'7' three windows, cotton and wire mesh, 3'7" x 3' x 3" door 2' x 5' x 6"; paint, three coats; hardware (nails,

The above house may be larger than is required for some farm flocks and a smaller colony house may be more desirable for this reason. A very good house may be made 6'x8' which will accommodate 100 chicks to the weight of two pounds, or fifty chicks from this weight up to four or five pounds. This smaller house should not be used for more than a dozen hens during the

FARM BULLETIN.

Crop and Dairy Notes From Eastern Ontario.

One is more or less surprised in visiting sections of Eastern Ontario to find comparatively little difference between the progress in the work on the land in these districts and in Western Ontario. A representative of 'The Farmer's Advocate' spent practically all of last week in Eastern Ontario, and was very glad indeed to note the advanced condition of seeding in that part of the Province. This is particularly true because of the fact that the seasons of 1918 and 1919 were most unsatisfactory from the standpoint of Eastern Ontario The wet weather in the fall of 1918, as will be remembered, was so serious and so prolonged as to make it impossible in many instances, without actually ruining the soil, to harvest the corn crop upon which the extensive dairy districts East of Toronto depend primarily for the wintering of dairy stock. The spring of 1919 was very, very late and most of the seeding was done well on into June. As a matter of fact, a good percentage of the land intended for spring crops was not seeded at all, which meant a very serious loss to the farmer, due to the lack of grain for the feeding of live stock, and an additional heavy loss due to the fact that little provision could be made for the hay crop of this year. Where it was not possible to get the grain crops sown, it was impossible to seed down the land to hay for this year. This spring, fortunately, conditions have so far been very favorable for farm work since the wet weather ceased, and everyone has been taking advantage of the opportunity to put in a good acreag. On many farms the acreage sown to spring crops will easily double that of last year, and there will be few instances indeed where this seeding will not all have been completed by the time this reaches our readers.

In many places spring grain is up and the fields show quite green, considering the cool w ather, but rains are necessary and also warmer weather, in order that the seed once started to grow may continue with out a setback. At the time of our visit many of the fields were beginning to take on a somewhat yellowish tinge, due to the cool, drying weather and the lack of moisture to encourage growth. Plants were existing practically on the plant food stored up in the seed. Not many growthy fields of clover were noticed, and only an occasional patch of alfalfa. One field of red clover was seen which was probably eight or ten inches n height and looked exceptionally fine on a gentle south lope. Pasture is still very short and unfortunately many herds of cattle have been turned out to grass because of the lack of feed. Bran in most parts of Eastern Ontario seems practically impossible to obtain, and other concentrated feeds are considered too expensive for feeding when any grass is available. The lack of feed and the poor pastures are having their effects upon the cheese production of Eastern Ontario, and some factories are reporting less cheese than last year from a larger number of cows.

CHEESE AND CHEESE BOARDS. On Thursday of last week we had the privilege of attending the Brockville District Dairymen's Board of Trade, or, in other words, the Brockville Cheese Board, and on Saturday we attended the Belleville Cheese Board. We had been particularly anxious to attend the Brockville Board for several reasons, chief of which was the fact that the Brockville Board probably disposes of more cheese during the season than any other Board in the Province. There is also the fact that the Brockville Board is distinguished by the inclusion of several large combinations, each of which represents from five to thirty or more factories. The cheese from all the factories in nearly all combinations are sold as a unit, one sales man acting for them all and getting so much possibly twenty-five or thirty dollars per season from each factory in the combination for selling the cheese of that factory on the Board. Over fifty factories are listed on the Brockville Board, besides the combinations, and many other factories in the vicinity of Brockville sell their cheese for the season on Brock-

ville ruling or whatever bargain they can strike with the Montreal dealers, based on Brockville price.

The week previous to our visit Brockville cheese had sold for 311/2 cents, and a lot of 605 boxes sold at Napanee for 33% to 337-16 cents. Commenting on the market of the previous week (May 8), Dairy Commissioner Ruddick, Ottawa, says in his dairy produce market report, as follows:

'There was a run-a-way market on cheese last week. The make is small as yet, and open orders in the hands of Montreal exporters caused prices to be hoisted on country boards beyond a reasonable figure. With exchange at \$4.20 to the pound, the maximum retail price of cheese in Great Britain (20 pence) is the equivaent of 35c. Apparently the fireworks that attended the cheese boards in Eastern Ontario were not in evidence

in Western Ontario. With this situation in mind, the Brockville Cheese Board met but after the buyers had held out for over an hour for cheese at 301/4 cents or less, the meeting broke up without any sales having been made. The sales-men were holding out for prices somewhere between 30½ and 31 cents, but the buyers were playing each other and were afraid of open bidding at anything like this price. The result was that all the cheese that was sold was sold on the street, and for prices ranging from 3014 to 31 cents. There were in the neighborhood of 3,000 boxes boarded, over 50 per cent. of which were listed by two of the combinations. One of these combinations was a "regular" and the other sold on the street afterwards for better than was bid on the board. At the Belleville Board, on Saturday, a much better attendance was secured and the business was conducted in a much more snappy manner. There are no combinations at Belleville. All cheese was sold at 30 9-16 eents to three different buyers. One factory only refused this price. We did not inquire, but it is quite within reason to suppose that this factory was a "regular" or preferred to sell off the board.

Hon. Dr. S. F. Tolmie Reviews Canadian Agriculture.

That the total agricultural wealth of Canada is estimated at \$7,379,299,000 was the statement made in the House of Commons last Friday by the Hon. Dr. S. F. Tolmie, Minister of Agriculture. The Minister was giving the House a general review of agriculture in Canada before the agricultural estimates were passed. Items totalling \$3,320,000 were carried by the Committee and \$900,000 for the development of the live-stock industry was left over by consent. The Hon. Dr. Tolmie said that the future of agriculture in Canada has great promise and that there were 53,049,648 acres of land under field crops in 1919. The value of agricultural products last year was \$1,975,841,000, as compared with mineral wealth in 1918 amounting to \$396,917,732, timber amounting to \$182,254,740, and fisheries amounting to \$60,221,863. Referring to the wheat crop acreage the Minister said that it aggregated 11,100,673 acres in 1911 and 19,141,337 acres in 1919, but that the yield had fallen off from 20.80 bushels per acre in 1911 to 10.25 bushels per acre in 1919, although in 1915, with an exceptional crop, the average went to 26.05 bushels. Dealing with the great need for maintaining soil fertility and for the continuous campaign of education to bring about better methods on the farm, the Minister estimated that with an increase of three bushels per acre in wheat, six in oats, four in barley, and fifty bushels in potatoes, which in his opinion it was quite possible to accura which in his opinion it was quite possible to secure, an estimated annual increase could be secured from grain crops and potatoes that would amount to \$233,211,082 He also estimated that an annual increase of \$275,308,666 in the value of live stock was possible by better breeding and feeding, which would bring the total possible increase per year in agricultural products to \$508,519,748, or more, then one questor and the contractors are all the contractors. more than one-quarter, annually, of the country's

> **Demand for Burley Tobacco** Uncertain.

The following cablegram has been received from F. Charlan, Chief of the Tobacco Division, who is in England investigating the possibilities of foreign markets for Canadian tobaccos. There is a warning in this cablegram which tobacco growers should heed, and it would be wise to get fuller information concerning it from the Tobacco Division, at Ottawa. The cable-

gram reads thus: "Evidence insignificant demand for White Burley, Best Canadian Burley still uncertain. Better go slowly, However, enormous demand for flue-cured bright Virginia type, production of which should be increased in Ontario. Grading and packing British style. Price Competitive." Competitive."

Canadian Society of Technical Agriculturists.

The announcement has been made from Ottawa that the election of officers for the proposed Canadian Society of Technical Agriculturists has taken place, with the following results: President, Professor L. S. Klinck, President University of British Columbia; Vice-President University of British Columbia; dent, Professor H. Barton, Animal Husbandry Department, Macdonald College, Quebec: Honorary Secretary-Treasurer, L. H. Newman, Secretary of the Canadian Seed Growers' Association. The Association now has approximately 400 members, and has been in process of organization since last autumn. The first convention at which formal organization will take place will be held at the Chateau Laurier, Ottawa, on Wednesday, Thursday and Friday, June 2, 3 and 4.