

cheese market of the closing months of 1914, is an evidence of unquestionable vitality. But like the growing human its second summer is likely to be beset by the greatest dangers." This from a journal, which is admittedly published chiefly in the interests of dealers and commission men, is a sign of hope; or possibly it may be meant to "damn with faint praise," but we have usually found this paper fair in its treatment of trade questions.

Senator Krumrey, responsible for this movement, is reported as saying: "Never have the farmers of Sheboygan County and vicinity gotten so much of the money that their cheese sold for in the cities, as they have in the last nine months, or since this Federation began selling cheese. Never has there been so much competition in the buying of cheese. Never have the cheese factory patrons of this county and vicinity fared so much better than did cheese factory patrons in other parts of the State." The Senator gave figures to show that their patrons had been much better paid than had patrons in other parts of the State, where there was little or no competition among the cheese buyers. He then added: "Kill off this Federation and you will be in the same boat that the farmers in that part of the State are. One cannot blame buyers so much. It is human nature to be selfish and take advantage when you can get it. Farmers must do just what the buyers are doing—cooperate, work together."

The foregoing extracts are taken from the "Plymouth Review" of Wisconsin, which paper adds this well-deserved tribute to the Senator who did most of the work in organizing the Federation: "Mr. Krumrey is receiving much well-earned praise. No one has ever more unselfishly worked in the interests of his fellow farmers, and a farmer who cannot see that is blind, indeed; and a farmer who sees it and will not recognize it is ungrateful to say the least. It is a terrible strain on a man to make the fight that Mr. Krumrey made, and it is constantly becoming more plain that his cause is a righteous one." The paper also pays a well-deserved tribute to the Manager, Mr. McCready. It says: "He is demonstrating that he was the man needed to give the Federation a right start."

In all this there is a valuable lesson for Canadian farmers, as to the future. Nothing is clearer than that farmers must take more interest in the marketing end of their business. What profit is there in working hard to produce goods and allowing the other fellow to walk off with the larger part of the dollar paid by the consumer?

No reflection is intended on Canadian cheese buyers, who as a class are honorable men, but as the Senator said, we can hardly blame them for taking an advantage when they can get it. How far this American plan of combining to fix prices of cheese has been carried out in Canada the writer does not know, but there have been rumors in the air from time to time that this has been done. If these rumors are established facts, then Canadian cheese producers would do well to note carefully the results as obtained by the Sheboygan County Cheese Producers' Federation. Cheese has been, and will be, an important article for the dairy farmers of Ontario and Quebec particularly. The present high prices of cheese are bound to stimulate production and interest in the Canadian cheese trade, which has been languishing for some years. Money has been spent lavishly in fostering the cheese business of Canada, yet we as Canadians were apparently willing to let this business go to the wall without making an effort to piece it on a sound basis. The fortunes of war have brought about the needed stimulus in the cheese trade. Shall we take advantage of this and improve the business, or shall we allow it to slip away from us? What say you, Canadian cheese producers and manufacturers?

O. A. C.

H. H. DEAN.

**McConkey's Holstein Sale.**

The dispersion sale of 34 head of McConkey's registered Holstein-Friesian cattle was held at his place in Bayham Township, Elgin County, on Thursday, February 25, 1915. The day was not favorable for a large crowd, but the bidding was brisk, and in about three and one-half hours 100 head of stock, including grades, were sold. Buyers were present from local points and distant centers. Everyone showed an interest in the stock offered. Five cows averaged \$200 a piece, the highest cows selling for \$220, \$210 and \$195. The average for 16 cows was \$163. Calves from 9 months to one year averaged \$96.50, small calves realized \$55.50, and yearling bulls brought \$65.10. Following is the list of those animals selling for \$100 and over, with their purchasers' names:

Floss De Kol, W. D. Lindsay, Hagersville,	\$150.00
Floss De Kol Segis, F. Haney, Ingersoll,	130.00
Ontario Maid 2nd's Star, W. D. Lindsay,	195.00
Netherland Beauty Sophia, E. Cheeseman,	
Corinth	170.00

Netherland Spot Sophia, Wm. Ford,	170.00
Straffordville	
Glenwood's Duchess De Kol, W.W. George,	105.00
Putnam	
Duchess De Boer De Kol, Roy Neville,	110.00
Straffordville	
Carrie Keyes, R. Kelly, Culloden	135.00
Fairview Posch, W. D. Lindsay	210.00
Lady Purity Samantha De Kol, T. Bedford, Guelph	185.00
Aggie De Kol Duchess, Frank Armstrong, Tillsonburg	135.00
Bonnie Canary Mercedes, Wm. Ford	175.00
Blossom Maid, Cecil Neville	135.00
Princess of Wellesley 2nd, Geo. Buckle, Ingersoll	220.00
Princess Jean De Boer, G. A. Procuinor, Corinth	100.00
Elmwood Pontiac Mina, Arba Johnson, Straffordville	180.00
Netherland Monica Posch, Grant Mitchell, Straffordville	150.00
Cornelia Netherland, A. Hatch, Chatham	125.00
Monie Grace 2nd, Cecil Neville, Straffordville	165.00
Monie Dark Lass, Roy Neville	127.50

**HORTICULTURE.**

**The Operation of Grafting.**

Few orchards in this country contain in every instance the variety of fruit best suited to the locality and market conditions. The demands of the market vary somewhat from time to time, yet there are a few varieties that are best suited for present-day requirements, and promise to be the leading kinds in the future. If trees of natural fruit occupy a place in the orchard or undesirable varieties reduce the profits, the grafting tools should be brought into use this spring, and the proper kinds established on those roots and trunks that under favorable circumstances would return a more pleasing revenue. A graft three years established should begin to produce fruit, and in five or six years the tree should be quite transformed in its appearance and bearing ability.

The operation of grafting begins with the selection of the scions. They should be cut before the sap starts to move in the tree. Scions may be preserved until needed for grafting by



Grafting Knife.



The Scion Set.

placing them in damp moss, sawdust or in earth in the cellar or in any dark and cool place. In cutting the twigs, only that wood which developed the previous year should be chosen. For instance, in selecting scions in the spring of 1915 twigs should be cut back to the mark in the bark, which indicates the division of growth between 1913 and 1914. The longest and healthiest twigs are often found in the topmost branches, and they are often worth the trouble and climbing necessary to obtain them. No mistake should be made in the variety of fruit from which the scion is taken. The operator should be positive that he is propagating the desired variety, else much loss will result from incapacitating a tree for two or three years only to again produce a worthless or undesirable kind. Furthermore, the tree from which scions are chosen should be a prolific bearer, for this characteristic will be transmitted to the grafted tree and conversely if poor-bearing trees are used to propagate others the newly-grafted branches are liable to be shy bearers. If we could obtain nursery stock that is always grafted from productive and young-bearing trees, we would obtain earlier and greater revenues from our young orchards. The principle is established and pretty well understood, but difficulties arise when operations are conducted on an extensive scale.

The season for grafting extends from the middle of March till the last of May, and in fact scions may be set even later with a fair degree of success if they have been stored properly and not allowed to become too dry. The operator should provide himself with a sharp pruning saw, a grafting knife, and a mallet. In addition a kettle is necessary to contain the wax during the season when it is necessary to heat the wax before its application. Grafting wax should also be previously prepared so it will be available on any bright day that scion setting would be

practicable. A satisfactory wax may be compounded from:

- Four parts resin,
- Two parts beeswax,
- One part tallow.

Melt these three ingredients together, and when thoroughly combined pour them into a tub of cold water. Have the hands greased and draw the lump of wax as one would candy, until it is light in color and very elastic. It should be left in the sun while the scions are being set, then after a little manipulating with the hands the operator can wax the scions and stubs of the limbs without trouble. Some prefer to heat the wax in a kettle and carry a pail or other container around with a small fire in it. In this case care should be taken not to have the wax too hot, else it will burn the scion. If there is always a piece of unmelted wax in the kettle the danger is not great.

Before one starts to saw, a survey of the tree should be made in order to place the scions in the branches that will result in the best-shaped top. If possible no limb larger than two inches in diameter should be used. This size will accommodate two scions very nicely, and will not be so severe on the tree as would the cutting out of larger branches. Even smaller limbs would be better, but with a large tree it necessitates going too far up, and the top of the tree will then be too high. The branch should be cut square across with a sharp, fine-toothed saw, and care should be taken not to mutilate the bark, or to allow the branch to fall, splitting off one side of the limb. Much trouble is often prevented by selecting a straight place in the branch where the bark is smooth and healthy, and where buds will not interfere when splitting the stub. It is best to do all the sawing in the one tree before starting to set the scions. If the tree is a large one it might require two years to complete the grafting, as too much cutting out of branches will be hard on the tree.

The scions should now be prepared. A sharp knife is necessary for this operation, as each scion should be made with three cuts of the blade. Holding the twig so a healthy bud is next to the operator, the blade is brought down beside the bud taking off one side of the twig. Another gash with the knife does the same on the other side of the bud, and then the prepared part of the twig is cut from the remaining shoot, leaving two or three buds on the scion. Two vigorous looking buds are sufficient, but some grafters prefer three. In making the wedge on the end of the scion care should be exercised not to injure the bud and to make the bud-side of the wedge slightly thicker than the other side, so when the stub of the branch is allowed to close on the scion it will bind where the union is to take place, viz., at the inner bark. One cut of the knife will leave a straight, even scion, but if the operator attempts to improve upon it with more paring he is liable to make the thickness uneven, and the stub will not bind the scion evenly along the entire length of the wedge. It is not necessary or wise to cut the scions too far ahead. They dry quickly during the grafting season, but one is safe to cut them in the morning to use during the forenoon or one-half day ahead.

The operator now takes the grafting knife, mallet and scions, and commences with the stubs. A knife such as the small one illustrated can be prepared from an old blacksmith's file. The wide blade is for splitting the stubs. It is then inverted, and the wedge on the end is driven into the centre of the stub in order to hold it apart while the scions are being inserted. It is not good policy to split the stubs up and down, it should be done crosswise or horizontally. When the scions are inserted with one above the other or vertically they are liable to split out when they begin to bear fruit or become laden, so it is wise always to separate them horizontally or on a line parallel with the ground. After the wedge end of the knife has been inserted in the stub the scions are inserted with the bud at the base of the scion to the outside. Growth of the scion depends upon the exactness with which the bark of the scion and the bark of the stub meet. The union will take place at the inner barks of the scion and the stub. If these correspond the sap will circulate from the branch into the scion, and layers of wood will form inside of the bark. It will be noticed when this operation is commenced how wise it is to have the outer edge of the scion thicker than the inner edge, for by so doing the stubs bind the scion right at the bark, making the circulation of the sap between the two more probable when growth starts.

It is usually best to use two scions in one stub. They are as likely to grow as one and the healing of the stub is encouraged, as new growth on top will then start from both sides. It is generally wise to start at the top of the tree to set the scions. By working down the operator does not come in contact with the scions already set, and thus danger of displacing them is eliminated.

The waxing operation is quite simple. Where it is heated in a kettle a little wooden ladle is

used that has the wax in such a way that it will not be too hot when it is put into the wax. The wax will be melted and the scion will be set. The wax will be melted and the scion will be set. The wax will be melted and the scion will be set.

After the scions are set, the tree should be kept in a cool place. The wax will be melted and the scion will be set. The wax will be melted and the scion will be set.

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