

ve favorable
embling the
ton's Globe,
s' Earliana,
rliness was
from 100
om Burpee's
13 ounces,
yielded 21
Pink is de-
rket, hence
the most de-
x mixture
e field, re-
eld of ripe

e by com-
trained to
part in the
nts 2½ feet
d of those
2 tons per
cre. The
were more
acre when
per plant
nces; ordi-

PLANTING

s, from an
ome of the
ario, before
November
ly train a
mother, ap-
for, if land
such a man-
three sea-
strawberries,
and with
ons, success-
tated, this
a variety
imation, is
il, not too
le evapora-
the season
ble having
and fall
early, in
the soil is
ready to
elf of the
firmly.

upon ex-
pect in view
or berries
long dis-
mits, many
plying the
l keep the
o two or
reated as
f the right
d be taken
plants dis-
lay the
well with
are ready
oon after

plants del-
grower,
Rows are
four feet
and from
the row.
is for one
asket of
or boy
ade, and
of the
tive man-
day. As
cultivated
the air
l. Afte
e a we-
ould be
form the
allowed
ne of our
ant to set
s system-
eral, nor
pract-
the rows
tect the
following
ly if the
d year's

SOME SUGGESTIONS ON SPRAYING.

Spring is with us again, and among the many things that demand the farmer's attention, spraying the fruit trees is very important. Of course, the orchardist is alive to this fact, but the farmer with a nice lot of trees very often trusts to luck, with the result that in the fall, instead of clean, smooth and sound fruit, he finds himself possessed of a lot of misshapen, scabby and worm-eaten apples. The one would be a source of revenue, and a delight to set before his friends; the other is an eyesore, and a basis for the assertion that "fruit trees don't pay."

It is possible to make the orchard plot very profitable, but whatever kind of trees a man may have they must be well sprayed to give best results. In order to spray properly, one must have a good pump. The formula for Bordeaux mixture is: Bluestone, 4 pounds; quicklime, 6 pounds; water, 40 gallons. Put the bluestone in a small bag of some coarse material, and suspend it in a wooden or earthen vessel holding, say, two gallons of water, until dissolved. Slake the lime, and when ready, fill the 40-gallon kerosene cask more than half-full of water. Then pour in the lime wash, diluting it and straining to keep out the sediment. Now churn up contents of cask with the pump and pour in the liquid bluestone, stirring the while. Then keep on pumping until the whole is thoroughly mixed. If the blossoms have fallen, 4 ounces of Paris green should be added; mix it with water before putting into the cask. Fill up the cask with water if it is not full already, and you are ready to apply. Of course, the cask is put on a cart or wagon before being filled; so, away to the orchard. Keep a good pressure on the pump so as to break up the spray into a very fine mist, and care should be taken to dampen the whole tree. Drive up one side of a row and down the other, or, if it is a calm day, one side of two rows can be done as we pass along.

If trees need to be specially treated for scab, they should be sprayed before the buds start to open, with bluestone alone, double strength, or 1 pound bluestone to 5 gallons water. The use of lime is to keep the bluestone from burning the foliage and to help the mixture to adhere well.

Spray after the buds open in the spring; then after the bloom falls, using the Paris green this time; then after the apples are well formed, if scab appears. If the young trees not yet in bearing are sprayed at least once each year, it will greatly help to keep them healthy and to grow apples free from scab when they do bear. I have seen this done with an orchard now ten years old, and there has not been any scab or wormy apples yet.

A. A. MOORE.

Prince Edward Island.

PLANTING EVERGREENS: DISTANCE APART.

I am thinking of planting a Norway spruce hedge this spring. What would be the proper or best distance to plant the trees apart in the row to make a first-class hedge?

B. W.

In planting Norway spruce for a hedge, much depends upon the height you wish the hedge to attain. If your intention is to keep the trees cut back in the form of a low hedge, then the trees should be planted fairly close, say about three feet apart, and in trimming, the trees should be cut off at a uniform height before they reach the ultimate height desired. The trimming should be done early in the spring, and the hedge should be kept in a pyramidal form, following as nearly as possible the natural form of the tree, instead of keeping it with a flat top and perpendicular sides.

If it is desired that the trees should form a high hedge or wind-break without cutting back, it is best to plant them eight or ten feet apart, so that they will have room for good development and not crowd at the bottom, which soon causes the dying of the lower branches.

The Norway spruce, if given plenty of room for development, will have a spread of twenty feet or more at the bottom, and for this reason they may be planted even twenty feet apart and make a good hedge, although they would be a long time in making a dense hedge at this distance. A good plan is to plant the trees eight or ten feet apart, and cut out alternate trees before they begin crowding.

H. L. HUTT.

SMALL FRUITS IN SASKATCHEWAN.

P. G. Laurie, of Battleford, states that he has success with several varieties of small fruits. The Manitoba plum (wild, we presume) and crab (Pyrus baccata) have been in blossom, the plums bearing fruit. All the protection given is that afforded by shelter-belts of sharp-leaved willow and caragana (Siberian pea). For an outside shelter-belt, he is growing Russian poplars, cottonwood, maple and birch. He recommends Golden Queen and Turner raspberries; White Grape, Fay's Prolific and Red Cherry in currants, while he finds that Smith's Improved and Houghton are best among the gooseberries.

THE FARM BULLETIN

SCHOOL TEACHERS' SALARIES.

The statistics with regard to the salaries paid to school teachers are especially illuminating. The average salary for male teachers in all Canada is \$486, and for female teachers \$245. The averages by Provinces are as follows:

Province.	Males.	Females.
British Columbia	\$ 676 84	\$ 553 08
Manitoba	487 00	410 22
New Brunswick	412 52	227 61
Nova Scotia	384 03	237 66
Ontario	537 85	307 75
Prince Edward Island	246 15	180 03
Quebec	450 13	138 44
The Territories	498 12	428 32

Female housekeepers, laundresses, nurses, midwives, char and washerwomen and sextons are better paid than female teachers in Quebec, while ranch foremen, farm superintendents, garden and nursery managers, hotel employees and foremen in many trades are better paid than male teachers in Ontario.—[From report of Dom. Bureau of Census and Statistics.

COMING BACK TO CANADA.

John Ferguson Snell, Ph. D., of the University of Cincinnati, has been appointed Assistant Professor of Chemistry in the new Macdonald College at Ste. Anne de Bellevue, Que. Dr. Snell comes of a family well known in agricultural circles in this country, being a grandson of the late John Snell, of Edmonton (now Snelgrove, Ont.), one of the earliest Canadian importers of pure-bred live stock, and a son of Mr. John C.



Professor J. F. Snell.

Snell, of the editorial staff of "The Farmer's Advocate," also formerly prominent as an importer and breeder of stock. Dr. Snell studied chemistry and mineralogy in the University of Toronto, graduating in 1894. Immediately after graduation he was offered and accepted an assistantship in Cornell University, Ithaca, N.Y., thus becoming a member of the teaching force of that famous institution. Receiving the degree of Ph. D. from Cornell in 1898, he was appointed assistant in Wesleyan University, Middletown, Conn., in which University he spent three years, engaged in expert work in connection with the nutrition investigations of the office of experiment stations, U. S. Department of Agriculture, under the direction of Prof. W. O. Atwater, an eminent authority in the chemistry of foods. From Middletown, Dr. Snell went to the University of Cincinnati, Cincinnati, O., as Instructor in Chemistry. Two years later he was advanced to an Assistant Professorship, which position he leaves to accept that of equal rank in this new-born College, in whose future are centered the hopes of those who have at heart the awakening of a deeper interest in the science and art of agriculture, and the improvement of the conditions of rural education in Canada.

Anton Koester, a milk dealer at Davenport Center, Delaware County, N. Y., has been convicted of shipping to New York City milk from which he had skimmed part of the cream. He was fined \$1,800 on thirty-six counts.

ONTARIO CROP-GROWING COMPETITION.

Mr. J. Lockie Wilson, Superintendent of Agricultural Societies, Toronto, addresses the following letter to the secretaries of Agricultural Societies:

The Ontario Department of Agriculture, desiring to encourage a high standard in crop raising, has decided to offer financial assistance to those Agricultural Societies throughout the Province which will undertake to carry on during 1907 a competition in "Standing Fields of Seed Grain," as per rules and regulations enclosed herewith.

THE MAIN OBJECTS.

- (1) To stimulate a greater interest in the growing of first-class seed grain.
- (2) To encourage the practice of growing seed for next year's crop separate from the main crop, using only the best obtainable seed, sowing it on the cleanest and best-prepared land, allowing it to thoroughly ripen, and threshing and storing separately.
- (3) To obtain pure grain, i. e., free from other varieties, the presence of which can best be detected when the grain is growing.
- (4) To encourage the use of seed from heavy-yielding strains.
- (5) To promote the sowing of seed from clean, vigorous crops of uniform stand and with bright, stiff straw, in the case of the smaller cereals.
- (6) To encourage careful and intelligent farming, and the production of grain free from weed seeds.
- (7) To facilitate, through a competition for sweepstakes prizes, which may also be held in addition to the local competitions, the bringing together at the Seed Department, Provincial Winter Fair, Guelph, samples from the winning fields in the various competing societies throughout the Province. This arrangement, if carried out, while serving an important educational purpose, will also afford a clue as to where good clean productive seed may be had.

It has been thought best, for this year at least, to limit the number of societies who may compete to ten. It will be necessary therefore for you, as secretary, to bring the matter before your society at the earliest possible moment and to decide whether or not you, as a society, will make application to compete. The first ten societies making satisfactory applications as per accompanying letter form will be accepted and given notice of the same immediately. We shall then send to the secretaries of each of these societies a number of application forms for the use of the individual competitors, among whom they may be distributed. In addition to the above contest a sweepstakes competition may also be held among the winners of the first prizes in each of the agricultural societies throughout the Province, and for each class of crops. Further notice of this will be given later, should satisfactory arrangements be made. The plan, as outlined, is a comprehensive one, requiring the hearty co-operation of all concerned to ensure success. We therefore trust that you will do all in your power to promote the movement.

THE REGULATIONS.

1.—Nature of Competition.—Competitions shall be limited to two crops, to be decided upon by the Society. It is desired that the Society shall decide upon one or two crops for competition that are of most importance to the farmers of the district. Every field entered for competition must consist of not less than five acres.

The following crops are suggested for competition: Spring wheat, white oats, barley, dent corn, flint corn, alsike clover, red clover and potatoes.

2. Competitors.—Competition shall be limited to members of the Society, and the fields entered for competition must be not more than fifteen miles from the headquarters of the Society. Competitors shall be allowed to enter in the competition of only one society. Competitors shall be allowed to make only one entry in each class of crop competition. The annual membership fee in any society shall be sufficient for entry in this competition.

3. Prizes.—Where societies limit their competition to one kind of crop the prizes shall not be less than the following: 1st, \$25; 2nd, \$20; 3rd, \$15; 4th, \$10. In the event of there being not less than ten entries in any society in this competition the Department will grant the sum of \$70 to cover the above prizes.

Where societies have competition in two kinds of crop the prizes in each case shall not be less than the following: 1st, \$20; 2nd, \$15; 3rd, \$10; 4th, \$5. In the event of there not being less than ten entries in each competition the Department will grant the sum of \$100 to pay above prizes.

4. As these special grants will be limited to ten agricultural societies, it is important that the board of directors to whom this circular is sent shall consider the matter at once. The grants will be limited to the ten societies first filing application with the Department, and agreeing to the terms of this competition.

5. All entries must be forwarded by secretaries of societies to J. Lockie Wilson, Superintendent of Agricultural Societies, Parliament Buildings, Toronto, before the 15th day of June, 1907.

6. Judging.—All judging must be done by judges approved by the Superintendent of Agricultural Societies. Arrangements have been made whereby expert judges will be furnished by the Seed Division of the Dominion Department of Agriculture.

All field crops will be judged from the standpoint of utility for seed purposes. The following scale of