HINTS ON POTATO GROWING

Special Investigation by the Provincial Department of Agriculture.

The Ontario Department of Agriculture is making an investigation into the potato industry of the Province by Mr. H B. Smith, B.S.A. After visiting the most important potato-growing sections of Ontario, he is preparing a special report for publication. Pending the free report, which will probably show a more serious state of affairs than is generally supposed, the following recommendations are put out with a view to impressing upon farmers the necessity of immediate action. The treatment of potatoes to prevent the rot is a matter of extreme importance.

"Ontario produced fewer potatoes in 1906 than she ever produced in any single year in all the time the Provincial Department of Agriculture have been collecting information concerning the acreages annually devoted to farm crops. Within the past few years the area planted to potatoes in this province has decreased by 50,000 acres; the product by approximately 6,000,000 bushels. Present indications are that the crop of 1907 will be lighter than last year's with the high prices that have ruled for some time strongly maintained. Farmers, on the right kind of soil, who have planted a good acreage to this crop this spring, will, if they are able to successfully bring their crop to maturity, reap larger returns from potatoes than they could likely derive from any line of farming in which they might engage, and it is to point out briefly one or two little things that in these days must be attended to, if potato growing is to be successfully accomplished, that this article has been prepared.

Inability to cope with the rot has been the great cause of failure in potato growing in Ontario, yet five dollars or even less, will cover the entire cost for material and labor required to treat one acre of potatoes with Bordeaux Mixture, and this mixture properly made and consistently and intelligently applied is a certain preventive of rot. From experiments officially conducted at Guelph, at Ottawa, and at practically every experiment station in the United States, and from the practical experience of growers everywhere, Bordeaux Mixture has proven the only effective remedy for Potato Rot. At Ottawa during the past three years, the average increase in yield from spraying with this mixture was 94.5 bushels per acre.

Bordeaux Mixture for potato spraying is made from the following formula:—Copper sulphate (bluestone or blue vitriol) 6 pounds, unslaked lime 5 pounds, water 40 to 50 gallons.

As it is inconvenient to weigh the lime and copper at the time of mixing and quite impracticable to keep a supply of ready-mixed Bordeaux on hand, stock solutions of the copper and lime are usually prepared ready for mixing as required. To prepare material sufficient to treat one acre of potatoes four times, proceed as follows: Place 72 pounds of bluestone in a bag or basket and suspend it near the surface in 36 gallons of water in a barrel. It will dissolve in a few hours, and every gallon afterwards dipped from this barrel will contain exactly 2 pounds of bluestone. For the lime stock mixture take 60 pounds of fresh unslaked lime and 30 gallons of water. Slake the lime by the use of as little of the water as possible, and when all is broken down, bring the solution to standard strength by adding what remains of the 30 gallons of water. Every gallon of lime mixture now contains exactly 2 pounds of lime. These mixtures, if kept under cover and evaporation prevented, will retain their strength all summer.

In making the Bordeaux it is important to remember that these strong "stock" mixtures must never be brought together. Pour 3 gallons of the bluestone solution into a 40-gallon barrel (an ordinary barrel holds between 40 and 50 gallons), half fill the barrel with water, add 2½ gallons of the lime solution, fill up with water, stir thoroughly and the mixture is ready for use.

For applying, a spray pump will be found economical of labor and materials, and the gain in product from one year's spraying of one acre of potatoes will usually pay the entire cost of such an appliance, but if none is at hand, Bordeaux may be applied after the same manner as Paris Green would be applied in solution for bugs. The object is to keep the crop covered with the mixture during the season in which blight is liable to occur, and while modern spraying machinery does this a little better than anything else, there are scores of farmers in Ontario who are obtaining quite satisfactory results from applying the Bordeaux by whatever means are at their disposal. In preparing the mixture where any kind of power sprayers are to be used, always strain the lime solution when mixing with the bluestone. The lime sometimes slakes lumpy and clogs in the nozzles. If required Paris Green may be applied with the Bordeaux, adding half a pound of Paris Green to each barrel of the mixture.

Spraying should begin about July 15th and the vines kept covered till September. Four applications as required, will usually accomplish this. Some have got fairly satisfactory results from one good spraying just at the time the disease begins to spread, and as we gain in spraying experience, the number of application may perhaps be decreased, but ordinarily, it is best to use the mixture at least four times.

Bordeaux is the only effective remedy yet devised for the control of potato blight. It is easy to make and easy to apply, and where properly made and thoroughly applied is certain to be effective. The only precautions to observe in making are to use pure fresh materials and mix these in correct proportions and in the proper way, and in applying to keep the mixture on the vines during the season that blight is likely to appear.

Parliament Buildings, Toronto, June, 1907.

FIVE MEN KILLED.

C. P. R. Express Dashes Into a Chinese Special.

A despatch from Winnipeg says: No. 97, regular west-bound C. P. R. express, and a Chinese special going east, collided at Butler, 275 miles east of here, shortly after 5 o'clock on Friday afternoon. The accident resulted in the death of five Chinamen on board the special and the serious injury of N. E. O'Connor, of St. John, N. B., a guard on the special, and a number of Chinamen. The cause of the wreck was a misunderstood order. The injured have been taken to Fort William.

200 DIE IN HURRICANE.

Immense Waves Devastate Many Parts of the Carolines.

A despatch from Sydney, N.S.W., says: The German steamer Germanic, which has arrived here, reports a hurricane, accompanied by immense waves, which swept the Caroline group. Many islands were devastated, and it is estimated that at least two hundred natives perished.

BREAD IN SEALED BAGS.

Direct From Baker to Consumer is Idea of Winnipeg Controller.

A despatch from Winnipeg says: Encased in a sealed oiled paper bag and direct from the baker to consumer, without handling by delivery boys or storekeepers, is the way Controller J. W. Baker would like to see loaves of bread delivered to consumers in Winnipeg. He is now bringing the matter before the health authorities, and a move along this line may be expected in the near future.

CANADA AND SOUTH AFRICA.

Trade Between Two Countries to be Developed.

A despatch from London says: Sir A. Jones, referring to his grant of free passage to commercial travellers between Canada and South Africa, says there should be an enormous trade between the two countries. The Elder-Dempster Company would do all they could to develop it.

FALLING OFF IN WHEAT AREA.

The Manitoba Department Issues a Crop Bulletin.

A despatch from Winnipeg says: A bulletin dealing with the condition of crops, live stock, etc., in Manitoba was issued on Thursday morning by the local Department of Agriculture and Immigration. Reports of correspondents indicate promising conditions in every section of the province. A falling off is reported in the acreage of wheat, but a substantial increase in the acreage of oats and barley.

The wheat acreage reported in last year's June bulletin was 3,141,537 acres, against 2,789,553 acres this year.

Last year there were 1,155,961 acres of oats, this year 1,213,596 acres.

The barley acreage last year was 649,570 acres.

As to live stock, the figures show the cattle fattened during the winter and the number of milch cows:

District—	Cattle fattened.	Milch cows.
South-western	10,058	25,654
North-western	5,946	2,872
North Central	5,542	22,918
South Central	3,385	17,197
Eastern	3,213	20,001
Totals	28,142	114,642

The employment and farm labor problem is shown thus:

Farm hands employed	18,501
Farm hands required	24,583
Female servants employed	4,619
Female servants required	5,162

A NEW COMET.

Member of Dominion Observatory Staff Makes Discovery.

A despatch from Ottawa says: Mr. J. S. Plaskett, who has charge of the big telescope of the Dominion Observatory, a few days ago discovered a bright comet which is approaching the sun and is daily growing more brilliant. At present the comet can be seen through an opera glass in the early morning, towards the southeast, and in a few weeks will probably be visible to the naked eye. The comet will increase in brightness till September, when it will be nearest the sun.

LEADING MARKETS

BREADSTUFFS.

Toronto, July 2.—Call board quotations are:—

Wheat—Ontario—No. 2 white, 91½c asked, outside, 89c bid. No. 2 red, 89c bid, outside, 89½c bid west; No. 2 mixed, 91c asked.

Barley—No. 2, 53c bid, 48c bid for one load, September or October shipment; No. 3 extra, 48c bid, October shipment; No 3, 50c bid.

Peas—No. 2, 81c asked, outside.

Oats—No. 2 white, 46c asked, outside; 45½c asked on a 6-cent rate to Toronto; 44½c bid.

Other prices are:—

Wheat—Ontario—Unchanged; No. 2 white winter, 88c to 89c; No. 2 red or No. 2 mixed, 88c to 89c.

Wheat—Manitoba—Lake ports, No. 1 hard, 95c; No. 1 northern, 95½c; No. 2 northern, 91c.

Oats—No. 2 white, 44½ to 45½c, outside; Manitoba, 45c to 45½c, outside.

Corn—No. 2 yellow American, 60½c to 61c.

Barley—Nominal; No. 2, 53½c to 54½c; No. 2 extra, 51½c to 53½c.

Peas—No. 2, 77½c to 78½c.

Rye—70c.

Buckwheat—60c.

Flour—Ontario, 90 per cent patents, offered at $3.55; Manitoba first patents, $4.75; seconds, $4.15 to $4.20; bakers', $4.75.

Bran—$18 to $19.

COUNTRY PRODUCE.

Butter—Prices show no further change.

Creamery prints	20c to 22c
do solids	19c to 00c
Dairy, prints	17c to 18c
do solids	17c to 00c

Cheese—12¾c for large and 13c for twins, in job lots here.

Eggs—17c to 18c per dozen in case lots.

Beans—$1.50 to $1.55 for hand-picked and $1.35 to $1.40 for primes.

Potatoes—Delawares, $1.30 to $1.35, in car lots on track here. Ontario, $1.10 to $1.15.

Baled Hay—$14 to $15 for No. 1 timothy and $12.50 to $13.50 for secondary grades.

Baled Straw—$7 to $7.25 per ton in car lots on track here.

PROVISIONS.

Dressed Hogs—Easy at $9.50 for lightweights, and $8.75 to $9 for heavies, farmers' lots.

Pork—Short cut, $22.75 to $23 per barrel; mess, $21 to $21.50.

Smoked and Dry Salted Meats—Long clear bacon, 11c to 11½c for tons and cases; hams, medium and light, 15½c to 16c; heavy, 14½c to 15c; backs, 16½c to 17c; shoulders, 10¾c to 11c; rolls, 11½c; out of pickle, 1c less than smoked.

Lard—Steady at these prices: Tierces, 12¼c; tubs, 12½c; pails, 12¾c.

MONTREAL MARKETS.

Montreal, July 2.—Rolled Oats—From $2.25 to $2.27½ per bag. In a jobbing way $2.30 is asked.

A fair trade is passing in oats on the local market. Holders are asking 49c to 49½c per bushel for No. 2 white Manitobas, 48½c to 49c for No. 2 Ontarios, 47½c to 48c for No. 3, and 46c to 47c for No. 4.

There is a good demand for all lines of millfeed, and bran and shorts are firm at unchanged quotations.

Domestic trade is responsible for the bulk of the business that is passing in baled hay and prices are steady.

Provision Market—There was only a fair demand and prices dropped 15c to 25c per hundredweight, with sales of select lots weighed off cars at $7 to $7.25.

Cheese and Butter—Cheese experienced a decline this morning. In the butter market prices were unchanged. Townships 20¾c to 21c, Quebec 20¼c to 20½c, Ontario, 20c, Ontario dairy 17½c to 18c. The cheese market prices dropped to Ontario 11⅝c to 11¾c, townships 11½c, Quebec 11⅜c.

Eggs—Prices were 16½c wholesale lots and 18½c to 19c small lots.

THE PERILS OF LABOR

No Less Than 91 Fatalities Reported During May.

A despatch from Ottawa says: Reports to the Labor Department show that the number of trade disputes during May was 49, an increase of twelve over the corresponding month of 1906. The loss in working days was approximately 88,325 as compared with 45,675 in May of last year. The increase is largely due to the strike of coal miners in the west, and of longshoremen in Montreal. There were about 411 firms and 11,697 employees affected by the various disputes.

There was a marked upward tendency in wages in nearly all lines of industry during the month. The number of new agreements with respect to wages reported to the department was considerably in excess of that during the corresponding period in any previous year since 1903. Nearly all the new agreements were on the basis of higher wage schedules. In the majority of cases the increases were obtained as a result of amicable negotiations and without friction between employers and employees.

During May there were 287 work people injured in industrial accidents. Of these 91 were fatal and 196 resulted in serious injuries. Railway accidents were responsible for twenty fatalities and thirty by them were injured.

BUFFALO MARKET.

Buffalo, July 2.—Flour—Quiet. Wheat—Spring strong; No. 1 hard, $1.03; Winter firm; No. 2 white, $1.02. Corn—Frm; No. 2 yellow, 57½c; No. 2 white, 57½c. Oats—Unsettled, weak; No. 2 white, 48¾c; No. 2 mixed, 45¾c. Barley—Quiet; Western offered 78 to 85c. Rye—Scarce and strong; No. 1, 91c asked c.i.f.

NEW YORK WHEAT MARKET.

New York, July 2.—Wheat—Spot firm; No. 2 red, 97⅛c in elevator and $1.00⅛ f.o.b. afloat; No. 1 northern Duluth, $1.03¾ f.o.b. afloat; No. 2 hard winter, $1.02¼ f.o.b. afloat.

CATTLE MARKET.

Toronto, July 2.—Export trade continued quiet. Very few cattle were offering, and the demand was only middling. Quotations were easier, choice selling from $5.60 to $5.75. Medium grades are dull.

Light offerings and a better demand were the features of the day's trading in butcher cattle. Extra choice sold from $5.25 to $5.50. Medium quality were unchanged at $4.50 to $4.75. Choice cows sold from $3.50 to $4.15; common cows, $3 to $3.25.

Buyers of stockers and feeder cattle reported a good demand for good quality. Choice were quoted from $3.75 to $4; common from $2.50 to $3.

Milch cows were dull at $30 to $50 for choice and $20 to $25 for common.

Veal calves were quiet and unchanged at 3c to 6c per lb.

Export ewes were quoted from $5 to $5.25, and lambs from 8c to 9c per lb.

The market for hogs was easy, as a result of heavy deliveries, but no further declines were registered. Buyers quoted selects at $6.75, with prospects for lower levels.

STEAMER BURNED.

Explosion of Lamp Started Fire in Engine-room.

A despatch from Sault Ste. Marie says: The steamer Batchewana, of the Ganley Tug Line, was totally destroyed on Wednesday night in one of the first marine disasters of the season at Copper Mine Point, fifty miles west of the "Soo," on the Canadian side. At ten o'clock fire was discovered in the engine-room, due it is said to the explosion of a lamp. The flames made rapid progress, compelling the engineers to make a hurried exit, leaving the engines in operation. The vessel was immediately turned to the shore one mile away and beached, the crew of fifteen men, under Capt. James Ganley, all being landed safely. They reached the "Soo" on Thursday morning on the tug Shamrock none the worse for the incident. The Batchewana carried a cargo of iron ore from the Helen Mine for the Algoma Iron Works at the "Soo." The boat was partly insured, but the Ganley Line will lose heavily on the disaster.

IT IS SIR MORTIMER.

Lieut.-Governor Among Recipients of King's Birthday Honors.

A despatch from London says: The King's birthday honors include the following:—

Baronetcy—Col. Ivor Herbert, ex-Major-General, Canada.

Knighthood—Mr. Nathanial Dunlop, Chairman of the Allan Line.

Order of St. Michael and St. George Grand Cross—Sir William MacGregor, Governor of Newfoundland.

Knight Commander — Hon. Charles Fitzpatrick.

Companions — Mr. James Stewart Pitts, Newfoundland; Captain R. H. Anstruther, Royal Navy; Mr. Alfred Duclos Decelles and Mr. Martin Joseph Griffin.

Knight Bachelor — Lieut.-Governor William Mortimer Clark and M. F. C. S. Langelier and Mr. Robert Gillespie Reid (in recognition of services to Newfoundland).

Victorian Order Knight Commander—Earl Dundonald and Sir T. G. Shaughnessy.

Sir Ivor John Herbert Bart commanded the Canadian local forces with the local rank of Major-General from 1890 to 1895. At Queen Victoria's jubilee commemoration in 1897 he was in command of the colonial troops.

CHARGED WITH MURDER.

Henry Lockyer Committed for Trial at Stratford.

A despatch from Stratford says: Henry Lockyer, who in a fight here some weeks ago struck the blow which the Coroner's jury found caused the death of Noah Hills, was brought before Police Magistrate O'Loane on Friday. Medical and other evidence, which was practically the same as that given before the Coroner's inquest, was heard, and the Magistrate sent the prisoner for trial on the charge of murder. Counsel for the defence tried to have the charge changed to manslaughter, but the court held that the jury might if they wished make a change in the charge. The trial will likely take place at the Fall Assizes in September. Bail was refused.

STARTLING EVIDENCE.

Cook of the Crystal Stream in Fear of Fire.

A despatch from St. John, N.B., says: A sensation was caused on Wednesday at the inquest at Cole's Island into the burning of the Crystal Stream, in which four men lost their lives, by the testimony of Mrs. May Coleman, cook on the steamer. She said she was in fear of fire, and this was chiefly because Mrs. Chase, the stewardess, had told her vengeance against the Crystal Stream had been threatened, if it took ten years. She thought Captain G. H. Perry of the steamer Aberdeen, who formerly was on the Crystal Stream, was the man meant as having threatened the steamer. Captain Perry was shown this statement on the arrival of his steamer here on Wednesday, and he denied it strongly. He imputed a motive to Mrs. Coleman, saying he was influential in having her discharged from the steamer Star some years ago.

PICKPOCKET'S HAUL.

Thousand Dollars Stolen in Winnipeg Building.

A despatch from Winnipeg says: Pickpockets are busy here, and numerous thefts are reported. J. J. Miller, an Iowa speculator, was relieved of a thousand dollars in the elevator in the Bank of Hamilton building on Wednesday afternoon just after he had cashed a draft.

GRATUITY TO LORD CROMER.

British Government to Present Him With $250,000.

A despatch from London says: It is stated that the Government will award Lord Cromer, who lately resigned his post of British and Consul-General in Egypt, the sum of $250,000 in recognition of his services in that country.

FOREIGNERS SWEAR ALLEGIANCE

A Marked Increase Shown in Naturalization Statistics.

A despatch from Ottawa says: The returns of naturalization in Canada for 1906 have been tabulated by the Secretary of State's Department, and show that a very large proportion of Canada's new citizens from foreign countries are taking the oath of allegiance.

During the year the naturalization totalled 10,242, as compared with 6,632 for the previous year, an increase of 3,610. The Naturalization Act requires three years residence in the Dominion before papers of citizenship can be taken out.

Taking into consideration the fact that only the heads of families and young men over 21 years of age of foreign birth need to take the oath of allegiance, the total of 10,242 for last year probably represents a large immigration of thirty to forty thousand. And since three years' residence is required it will be seen that almost the whole foreign immigration of 1903 has become naturalized by law.

The total naturalizations of immigrants from United States were 3,888, which, compared with the immigration figures of 1902-03, show that nearly all the American male settlers in the West are taking the oath of allegiance to the British Crown.

The total immigration for the month of April was 44,051, as compared with 35,313 for April of last year, an increase of 25 per cent. For the ten months, July 1 to April 30, the immigration was 163,718, compared with 124,031 for the corresponding months of the fiscal year, an increase of 4,687 or 36 per cent.