

Winter Wheat: A Valuable New Variety

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The market value of the winter wheat of Ontario amounts to over fifteen million dollars annually. It is, therefore, one of the most important of the money crops of the province. The acreage of winter wheat during the past year has been about the same as the average annual acreage for the past forty years. There is not a country or district in Ontario in which winter wheat is not grown, although in New Ontario the average annual amount is not more than about 20,000 bushels. Owing to the comparative low price of winter wheat at present, strict attention should be given to economic methods and to large yields.

The Dawson's Golden Chaff is still the variety most largely grown according to the December Bulletin of the Ontario Department of Agriculture for 1922. With the object of securing even better variety, crosses have been made at the Ontario Agricultural College between the Dawson's Golden Chaff and some other varieties, such as Tasmania Red, Crimean Red, Turkey Red, Buda Pesti, Imperial Amber, and Bulgarian. A new variety has been originated at the College by crossing the Dawson's Golden Chaff and the Bulgarian and this is now known as the O.A.C. No. 104. In both the College and co-operative tests, this new variety has made an excellent record, surpassing the Dawson's Golden Chaff in both yield and quality of grain. The O.A.C. No. 104 is a white wheat and resembles the Bulgarian in possessing a white chaff and the Dawson's Golden Chaff in a beardless head. It is a vigorous grower and has been less subject to winter-killing than the Dawson's Golden Chaff.

Not only is it important to sow the best variety of winter wheat, but it is also important to use seed of high quality. The results of 6 years' experiments at the College, which were conducted in duplicate each season, show an average increase in yield of grain per acre of 6.8 bushels from large as compared with small seed, of 7.8 bushels from plump as compared with shrunken seed, and of 35.6 bushels from sound as compared with broken seed. Seed which was allowed to become thoroughly ripened before it was cut produced a greater yield of both grain and straw and a heavier weight of grain per measured bushel than that produced from wheat which was cut at any one of four earlier stages of maturity. In each of 2 years when winter wheat was sown in the fields, germination tests of the grain were made. The following re-

sults show the average percentage of germination from each selection: Skin over germ, unbroken, 94; skin over germ, broken, 76; sprouts one-quarter inch long, 30; and sprouts one inch long, 18. Not only was the sprouted wheat low in germination but the plants produced were very uneven in size.

From the numerous varieties of winter wheats tested at the College, it seems to be generally true that white wheats as compared with red wheats yield more grain per acre, possess stronger straw, weigh a little less per measured bushel, are slightly softer in the grain, are more useful in the manufacture of shredded wheat and of pastry, and furnish a somewhat weaker flour for bread production.

Winter wheat which was grown on clover sod yielded much better than that which was grown on timothy sod, and that which was grown on land on which field peas were used as a green manure yielded 6.5 bushels of wheat per acre more than that grown on land on which buckwheat was used as a green manure.

In time for seeding this autumn, valuable material will be sent out from the College to those farmers residing in Ontario who wish to conduct experiments upon their own farms through the medium of the Experimental Union. The material will be supplied, free of charge, to those who wish to conduct the experiments and report the results in the early autumn of 1924. Any Ontario farmer may apply for the material for any one of the following seven experiments: (1) Three choice varieties of winter wheat; (2) One variety of winter rye and one of winter barley; (3) Spring applications of five fertilizers with winter wheat; (4) Autumn and spring applications of nitrate of soda and common salt with winter wheat; (5) Winter emmer and winter barley as fodder crops; (6) Mixtures of winter rye and hairy vetches for seed production.

The size of each plot is to be one rod wide by two rods long. Fertilizers will be sent by express for experiment No. 4 this autumn, and for experiment No. 3 next spring. All seed will be sent by mail except that for No. 4, which will accompany the fertilizers. The material will be sent out in the order in which the applications are received and as long as the supply lasts. The O.A.C. No. 104 variety will be included as one of the three varieties of winter wheat sent out for Experiment No. 1 in the above list.

Summer Pasture for Growing Pigs.

During the busy summer days on the farm, the question of how best to handle the herd of growing pigs in order to get the maximum results from the minimum outlay in feed and labor is of vital importance. With a herd of growing cattle all that is necessary is to give good pasture with a little salt and sufficient water and they will come along all right. While grass and water alone are not entirely sufficient for the growing pigs, many feel that a good clover pasture will go a long way in supplying their feed requirements and consequently reduce the amount of concentrates or grain required.

In order to obtain some information on this problem an experiment was conducted on the Experimental Station at Kapuskasing, Ont., in 1922. While testing out the effect of pasture it was thought advisable to include in the test a comparison of self-feeding and pail-feeding. Thirty pure-bred Yorkshire pigs, twelve weeks old and very uniform, were selected on August 1st and divided into three groups of ten each.

Lot No. 1 was housed in clean dry quarters in the main hog pen, while Lots 2 and 3 were turned out on clover pasture, each lot having a portable hog cabin as a shelter.

The three lots were fed rations of similar meal mixtures, as follows: From twelve to fourteen weeks of age, a mixture of finely ground oats, two parts; middlings, two parts; and finely ground barley, one part; plus five per cent. tankage. From fourteen to twenty weeks the mixture consisted of finely ground oats, finely ground barley and middlings, equal parts, plus five per cent. tankage. From twenty weeks to the end of the experiment on November 1st the mixture was: finely ground oats, one part; middlings, one part; and finely ground barley, two parts; plus five per cent. tankage. Each lot received the same amount of skim milk, which varied slightly from day to day.

Fresh drinking water was kept before all three lots at all times and Lots 1 and 2 were fed their grain in the form of a milk and water slop; while Lot 3 consumed the dry grain from the self-feeder and milk from the trough.

The milk was charged at fifty cents per one hundred pounds, and the other feeds at actual market prices as follows:

Oats	\$1.75 per cwt.
Middlings	\$1.95 per cwt.
Barley	\$2.10 per cwt.
Tankage	\$3.75 per cwt.

The results show that it took 606 lbs. of feed per one hundred lbs. gain with the inside lot; while 388 and 401 lbs. of feed produced one hundred

pounds gain on Lots 2 and 3 respectively.

The cost of producing one hundred lbs. of gain, labor included, was \$22.90 for Lot 1, \$11.86 for Lot 2, and \$10.45 for Lot 3.

From these results it may be concluded that, where a farmer has plenty of clover pasture and is short of labor, he will be well advised to turn his shoats out and supply them by means of the self-feeder.

POULTRY

After selling eggs by parcel post for two years I have found out two important facts about this method of marketing eggs. First, the folks to whom we ship in the big city, about 250 miles distant, are rather seasonal in their desire for eggs. They want our fresh country eggs especially from October to some time after Easter, perhaps because most of the eggs then to be obtained in the stores or markets are stale or cold-storage eggs. In summer they find fresh eggs plentiful in the city; besides, they do not eat as many eggs during the hot months.

Second, those to whom we ship eggs work in large factories, and receive what I consider substantial salaries. They do not hesitate to pay the same prices for the eggs as they pay in their local stores. This often nets us five cents or more a dozen than we could secure locally. They furnish and maintain their own twelve-dozen shipping crates. They pay the postage both ways—on the empty and the filled crates. We have no fillers or crates to buy or maintain.

I have learned that two precautions must be taken: the eggs must be fresh, and must be packed well. We never have had a report of a single bad or broken egg.

The eggs are gathered each day, sorted and put directly into the crates, so we have no extra handling. The crates are kept in a cool place to preserve the freshness of the eggs. If kept in a warm, dry room many days, they lose much of their fine flavor, and moisture evaporates from them.

In packing we use old papers to make the fillers firm and solid, so that the eggs cannot shake about if the crates are handled roughly somewhere while in transit.

Our first experience started in shipping to a relative. Their neighbors next door and their friends asked if they could secure eggs from us. We could ship more eggs than we do, but our shipments are limited to the surplus from our good-sized farm flock. The only advertisement necessary under these conditions to find an outlet for all our surplus eggs is a few pleased customers. Good eggs, good packing, prompt service, and good customers combine to bring good prices. Judging from our experience, the first pleased customer becomes an advertising medium.—J. J.

For Home and Country

The Prince of Wales at an Institute Quilting Demonstration

BY GIBSON SCOTT.

At the Royal Agricultural Show at Newcastle-on-Tyne the Northern Counties Women's Institutes of England were represented by an exhibit of handwork of all descriptions. A large tent was entirely filled with their work. One of the toys made, Polar Bears in an Arctic Setting, was sent to the Headquarters Loan Collection at London, being much admired.

Another unique feature was a quilting demonstration. This tent was an object of particular interest to the Prince of Wales, who not only visited it, but remained a fascinated observer of the "quilting bee." We would suggest to our English sisters that the quilt might find an appropriate abiding place in the Prince's Canadian ranch home.

BOTH WORK AND PLAY IN THIS CANADIAN INSTITUTE.

In looking back over the year's work at Vernon, Ont., we have a feeling of gratitude that we have not stood still, but that some real work has been done for the good of the community. Nine meetings were held during the year, at which papers and readings were given by members. A demonstration on Table Setting and Serving for a formal dinner, by a member, an address on Beautification of Home Surroundings by one of the pastors, and papers on Thanksgiving, Kitchen Short Cuts, What Other Institutes are doing in Canada, and Rural Horticulture, indicate the range of our interests. During winter months meetings were held in the homes, with an added attendance and deeper interest. With the usual socials and concerts we raised \$447.59 during the year and paid \$140 on our piano; \$25 was used in buying clothing for women and children of fire sufferers in Northern Ontario, and in October four large boxes consisting of bedding, quilts and pillows, nightgowns and second hand clothing for men, women

and children were sent. In January \$83 was collected in the community and sent with another large box of bedding, quilts and pillows. We conducted a Community Singing Class during the winter months under the leadership of a local man. Lessons were given free to the school children and a song book to each family, institute members paying a small fee. At the close a concert was given by the class to defray expenses.

We also provided flower boxes for the school verandah, and the teacher, with the help of the school children, made flower beds, the W. I. members providing plants. The teachers, who are also members of the Horticultural Society, gave their flowers to be used in boxes.

As we have the Hall free for all our meetings we felt we would like to do something to make it more homelike and donated \$10 toward shades.

There is an old saying: "All work and no play makes Jack a dull boy," so we combined the two, and in October had a Halloween Social, giving prizes for best costumes; had games and served refreshments. In March we had an Irish concert. Some thought this a little out of line in a Scotch community, but it's wonderful what they can accomplish with practice.

As Institute workers, we are striving to do better, to improve on our mistakes, and to put before the world an example of which none of us needs be ashamed. May we in the words of Edgar Guest's beautiful poem: "To each day bring our very best. A lifetime is but a day; To-morrow we may be called West, Now is the time to say The helping word to a toiling friend. Now is the time to give The helping hand ere the sun descend, To-morrow we may not live."

And with Longfellow: "Let us then be up and doing! With a heart for any fate, Still achieving, still pursuing, Learn to labor and to wait."

Hold a School Fair This Year

BY E. G. WILLIAMS.

In many communities the school fair has become one of the most interesting social events of the year, bringing young and old together, with the result that a better understanding is established between the present and future generation of the community.

It is gradually coming to be realized that there is no stronger incentive to keep young men and women on the farm than personal interest and activity in some practical phase of farm work. And the special interest that always appeals with the paramount force is the show and prize list.

To organize an exhibition of boys' and girls' work and make it a success is almost, if not quite, as great a task as to get up a show for the adults. One reason for this is that the boys and girls should have as much as possible to do with the arrangements; and they must, in most cases, be directed, to a large extent, in the things to be done and the methods of doing.

If it is a school fair the teacher will wisely refrain from too much dictation or bossing, laying the business before the pupils with the best suggestions, but leaving the deciding and the performance as much as possible with the classes or committees in charge of the various departments. The following suggestions may be of great value to those wishing to put on some such affair.

First, select a boy to conduct the program on the day of the show; second, a boy to construct or secure the tables and decorate the rooms; third, a boy to see that the products are entered in the proper classes as they are brought in; fourth, a boy to act as clerk for the judge on the day of the show; fifth, a boy to place ribbons on the products and distribute the prizes.

While each of these boys may help the others, yet each has a particular job, for which he is responsible. These boys are chosen by their classmates, to carry out their particular duties. They may have assistants, if needed. After having elected officers for the show, the next problem is one of advertising. This can be done in several ways.

Here are suggestions that might be helpful: An attractive, well-arranged premium list, to be circulated, a letter sent either by the teacher or by one of the pupils to the leading farmers of the community; announcements at public meetings; a series of news items for local newspapers; a number of handbills distributed throughout the community; attractive posters, and window displays.

A few rules are necessary in running a successful fair. For example: All exhibits must have been grown during the preceding season on the farm of the exhibitor.

An entry of corn shall consist of ten ears, unless otherwise provided for. Entries should be made in person, if possible.

Only one entry will be allowed any exhibitor in a single class.

No entrance fee shall be charged to exhibitors.

Small grains are generally brought in quantities of one peck each.

Different methods have been used in securing premiums. In some cases the

agricultural departments put on a play, the proceeds to be used for the expense of the exhibit and the payment of premiums. In other cases some local organization may contribute. The more common plan has been to depend on individual contributions of money or merchandise from local merchants, or others interested. In giving publicity to a show, should be given.

The exhibits shown may be sold at auction after the show and the money used to pay expenses. Sometimes, however, this is not satisfactory, as the owners of good exhibits often wish to keep them. This can be arranged for those who wish their products back.

Expensive premiums should not be encouraged. It has been found much more satisfactory to offer several small premiums than a few large ones. Some schools have found it advisable to give, in addition to other premiums, printed ribbons, denoting first, second, third and fourth classes.

It has been found advantageous to have some form of entertainment or speaking in connection with the show. In one instance, a room was provided for the exhibition of relics and curios. This proved an attractive part of the show. A corn-judging contest should be held by the boys taking agricultural work, or possibly, a stock-judging contest. Demonstrations in knot-tying, halter-making and rope-splicing by vocational boys are always of interest.

Care should be exercised in securing a competent judge. Sometimes the agricultural representative is available and does satisfactory work; in other cases the extension department may be able to furnish a good man. In every instance the judge should be a man in whom the people have confidence. Future shows may be discouraged through neglect of this point. It is well to make use of the experience of the past, but the fair needs to be kept up-to-date.

SHEEP

Scouring in feeding lambs can be remedied or prevented if the stock is managed right upon arriving on your farm. For a number of years I have fed Western lambs which I buy on one of the lake markets. On the trip from market to my farm the lambs are practically without feed and water for more than twenty-four hours.

When they arrive they cannot be put right on green pasture without danger of scouring. Invariably if lambs are turned on green pasture they will scour. I put them in a field or feed lot for a day or two, giving them plenty of dry hay and clean water. Then I turn them on a clover pasture for an hour or two. After this they are brought back to the feed lot for hay again. Each day for a week I leave the lambs on pasture a little longer until they are accustomed to it.

I have no trouble with scours. This ailment may easily be expensive, since the lambs become very weak and may die. One or two deaths in a flock help spoil a profit.

The Sunday School Lesson

SEPTEMBER 16

Luke, the Beloved Physician. Luke 1: 1-14; Acts 1: 1-5; 16: 9-18; Col. 4: 14; 2 Tim. 4: 11. Golden Text—A friend loveth at all times, and a brother is born for adversity.—Prov. 17: 17.

LESSON FOREWORD.—To-day we study the life of Luke. Although he is one of the outstanding personalities of the New Testament, the details of his life are very meagre. He is said to have been born in Antioch in Syria. His writings show him to be a person of education, both literary and medical, while tradition credits him with being a painter of no mean skill. He shows in his writing not only a trained mind, but a great heart. His Gospel is called the Gospel of God's wide open heart and all enclosing arms. It is the universal Saviour that Luke brings before us. Luke was evidently a person of means, which were also, like mind and heart, dedicated to God, and so he becomes the ministering companion of Paul in his missionary labors and experiences.

I. LUKE, THE WRITER OF THE GOSPEL, LUKE 1: 1-4.

Vs. 1, 2. Forasmuch as many have taken in hand. Luke is giving the reason that prompts him to write his Gospel. The apostles had communicated, by word of mouth, the story of Christ's deeds, words, death and resurrection. This word of mouth story had been, in turn, set out in written order by many. It was too precious to be allowed to merely pass from mouth to mouth. A declaration: "I have written this book, that whosoever shall read it, may have the things which have been fulfilled in us, and that we may bring forth the fruit of them." The writer narrative found its sole source in the story of Christ as it came from the apostles. Eyewitnesses, and ministers. The reason why the apostles should be the sole authorities was twofold. First, they were intimate friends and eyewitnesses. Second, after the ascension of Christ, they were his spirit-filled and spirit-guided stewards and representatives.

Vs. 3, 4. It seemed good to me also. The writer, therefore, is not doing a presumptuous thing, but only following a practice already established. Having had perfect understanding of the beginning, Luke has made a personal, a detailed, a complete study of Christ's life. A reference to Luke's Gospel will show how this Gentle writer has given us much not found in the other Gospels, such as the stories of the birth and infancy of Jesus. Most excellent Theophilus. All we know of Theophilus is that he is a Christian and also a man of high rank, as is indicated by the title of address, "most excellent."

II. LUKE, THE WRITER OF THE ACTS, ACTS 1: 1; 16: 9-15.

Acts 1: 1. The former treatise; the Gospel of Luke. The object of this second treatise is not to tell the whole story of the acts of the apostles, but was brought to the Gentile world in accordance with the whole spirit of Christ's ministry and teaching.

Vs. 9, 10. There stood a man of Macedonia. After Paul had been prevented from preaching the gospel in Asia and Bithynia, a new and greater opens before him. It is at this point that Luke seems to have become the companion of Paul, v. 12. We endeavored. Luke stayed behind in Philippi. Five years later Paul and Luke meet again, almost certainly in Philippi, Acts 20: 3-5. Some think, therefore, that Luke was a native of Philippi, and that Paul's vision of the man of Macedonia was preceded by a visit from Luke, who urged Paul to come to Philippi.

Vs. 11, 13. Neapolis; the port of Philippi. A colony. Philippi was a Roman possession and the civil magistrates and military authorities were Romans, appointed from Rome. Where prayer was made; a place where the Jews met for prayer and for the observance of the Jewish ceremonial washings. Hence, it was by the river side.

Vs. 14-16. A seller of purple. She came from Thyatira, a city of Asia Minor, of which dyeing was a staple trade. It was here Lydia got her purple for sale in Philippi. Which worshipped God. This Gentle woman was a convert to the Jewish faith. Whose heart the Lord opened; for the greater light of the gospel. The first convert in Europe is a woman. Her household. Lydia was a woman of means, and had servants. They share in her spiritual blessing. Come and abide. she constrained. Lydia's purse and home are also opened to God, and his servants. She insists on giving hospitality.

III. LUKE, THE BELOVED FRIEND OF PAUL, COL. 4: 14; 2 TIM. 4: 11.

Col. 4: 14. This Epistle was written by Paul during his first imprisonment in Rome. Luke, the beloved physician. After the second meeting in Philippi, referred to, Luke seems to have been continuously in the company of Paul. The description of Luke as beloved slows the bond between the two friends.

2 Tim. 4: 11. This letter was written during Paul's second and last imprisonment in Rome. In the first imprisonment, Paul had comparatively good treatment, being allowed to live in his own hired house under guard. Now his treatment is more rigorous. He is in a real prison. Only Luke is with me. Paul needs friends more than ever. The end is near, but Demas, who was with him, has forsaken him, having loved the world better than Christ. Take Mark. This is the Mark about whom Barnabas and Paul had a contention. Now Paul has recognized the worth of Mark. Mark had overcome himself and proved himself worthy of the friendship of the great apostle.

APPLICATION.

The Doctor. There is a rather uncomplimentary reference to the doctors in St. Mark. "A certain woman had suffered many things of many physicians, and had spent all that she had, and was nothing bettered, but rather grew worse." It is well

that there can be set over against that the life of Luke. Although he is one of the outstanding personalities of the New Testament, the details of his life are very meagre. He is said to have been born in Antioch in Syria. His writings show him to be a person of education, both literary and medical, while tradition credits him with being a painter of no mean skill. He shows in his writing not only a trained mind, but a great heart. His Gospel is called the Gospel of God's wide open heart and all enclosing arms. It is the universal Saviour that Luke brings before us. Luke was evidently a person of means, which were also, like mind and heart, dedicated to God, and so he becomes the ministering companion of Paul in his missionary labors and experiences.

The Medical Missionary. Dr. J. D. Jones says that Luke is "the first Christian medical missionary." It is easy to believe that this is very literally true; that Luke, traveling with Paul, both preached and used his skill in healing people of their sicknesses. About twelve years ago an honored medical missionary, who has since died, wrote: "The long-drawn, never-ending cry of physical suffering, and of the hopeless misery of spiritual darkness, rising from the millions of stricken men, helpless women, and perishing children of China, is beginning to reach the ear of the Christian Church; while at the same time the wise and loving example of the Christian in preaching, teaching and healing, points the way to quickest and surest relief." "Too long," he said, "have the churches and missionary societies ignored or neglected the powerful 'medical arm' of Christian missions."

The Doctor as a Literary Man. There is a remarkable work by Dr. Hobart, on "The Medical Language of St. Luke," in which the author makes a minute comparison of words used in the third Gospel and Acts, with words employed by Galen, Hippocrates, and other medical writers of antiquity; the result is that many of Luke's favorite words, and many of the words used exclusively by him among New Testament writers, are found to be characteristic of these writers. He writes like a doctor.

Three medical men of our own time have made notable contributions to literature, all of them with a distinctively Christian message. Sir William Osler, a Canadian, of Toronto University, and finally as professor of medicine at Oxford; Dr. R. C. Cabot, with his commendation of work, play, love, and worship as the things by which men live; and that intrepid Labrador doctor, missionary, and author, Dr. Wilfred T. Grenfell.

Tomatoes for Pickling.

Spiced—Two quarts tomatoes, 1 quart brown sugar, mixed spices to taste (mace, allspice, cinnamon, nutmeg). Stand 3 hours, then boil like sweet pickles—One peck tomatoes, 2 onions, 1 red pepper, 3 cups mild vinegar, 2 cups brown sugar, 2 tablespoons salt, 1 teaspoon each cinnamon and nutmeg, ½ teaspoon cloves and allspice. Simmer slowly. Pack tomatoes when tender. Boil down syrup.

Mustard—Simmer ½ bushel sliced tomatoes and 6 red peppers 40 minutes. Sieve, add 1 tablespoon black pepper, 1 ounce cloves, salt to taste, 1 cup brown sugar, 2 grated onions, ½ ounce mace. Boil until quite thick. When cold add 1 ounce each mustard and curry powder and 1 cup vinegar.

Sauce—Eighteen green tomatoes, apples, small onions; 6 green peppers—all chopped. Simmer with 1½ cups raisins, 3 cups each sugar and vinegar, 2 tablespoons each of ginger and salt, ½ teaspoon paprika, juice 5 lemons, ½ teaspoon curry powder. Cook like marmalade.

Green Pickle—One peck green tomatoes and 1 dozen white onions, sliced. Arrange in layers with salt and stand overnight. Drain off brine. Simmer 10 minutes with mild vinegar to cover, 4 shredded red chili peppers, 2 tablespoons celery seed, 1 of mustard seed and ½ cup or more of mixed whole spices in a bag. Stir in 1 tablespoon grated horseradish. Seal.



The Best Trees.

I'd like to have some trees that grow in other lands beyond the sea; I'd like to own a breadfruit tree, And take the fruit, instead of dough, And bake it for myself. I think I'd choose a coconut for drink.

The coco palm might grow too tall For me to climb, but anyway I know the nuts would fall some day, And I could surely find them all And have the milk, all fresh and sweet! Oh, that would surely be a treat!

And yet, if some who never knew What maple sugar is, could see And taste it, they would think that tree The very best that ever grew!

They'd plant a maple in the spring, And prize it most of everything!

Mustard and other gases are to be employed in clearing out nests of rattlesnakes in Texas.

Royalties amounting to \$11,000 were paid to Sir Arthur Sullivan during his life as a result of the popularity of "The Lost Chord."

Air accidents during the six months ended June 30th, in all parts of the world involved the deaths of 163 persons, as the result of 90 crashes.