

## ONTARIO FARMERS LOSE HEAVILY

Degrading of Wheat by Smut Calls for Proper Treatment of Seed Grain to Eradicate Evil: Ontario Agricultural College Issues Statement.

Fully \$700,000 has been lost to Ontario farmers owing to the presence of smut in last season's No. 2 winter wheat. This estimate has been arrived at after an inspection of the samples of grain collected from all parts of the Province for use in setting the Standards for Commercial Grades of Grain for the last season, when it was shown that a large percentage of the grain would grade below the Standard Grades.

Records of official inspections in the Eastern Division indicated that over thirty per cent. of the grain had been excluded from the Standard Grades, while it was expected the percentage of the total crop would be larger. The estimate was that the presence of smut would mean a decreased return to the farmers of the province of from five cents to fifteen cents a bushel below the normal price of No. 2 winter wheat, or a total loss as stated above.

### AN AVOIDABLE LOSS.

Deterioration in the quality of Ontario wheat from smut became so pronounced last year that the Grain Standards Board for the Toronto District of the Eastern Inspection Division directed the attention of the Hon. J. S. Martin, Minister of Agriculture, to the great importance of farmers treating their seed grain for smut if they are to produce crops to yield the largest monetary returns. Such treatment will easily remove the heavy annual loss, and to indicate what line of procedure must be followed the Ontario Agricultural College, which has done some experimenting along this line, recently issued a statement.

### TWO KINDS OF SMUT.

"There are two kinds of wheat smut in Ontario, namely, Stinking Smut or Bunt and Loose Smut of Wheat. The stinking smut or bunt was very prevalent last year and I expect to hear that it is prevalent again this year, judging by the amount that has developed in our check plots in our experimental work.

"Experiments conducted in the United States during the past few years and this year in Ontario, demonstrated that copper carbonate dust is the most satisfactory seed disinfectant for the prevention of stinking smut or bunt of wheat.

"Directions for the copper carbonate dust treatment: The dust should be applied at the rate of 2 oz. per bushel of wheat. Place the grain to be treated in a barrel or churn about a bushel at a time. Add the required amount of copper carbonate dust and

then revolve the barrel or churn until the dust is thoroughly mixed with the grain. After this treatment the grain may be bagged and sown at once. This method of applying the dust involves much time and labor if large quantities of grain are treated. Machines are now on the market, however, for applying dust rapidly to large quantities of seed.

### ANOTHER METHOD.

"Stinking smut or bunt can also be prevented by sprinkling with a diluted formalin solution. The directions for sprinkling with a formalin solution are as follows:

"Mix one pint of formalin with forty gallons of water. Place the grain to be treated in a heap on a clean floor. Sprinkle the formalin solution over the grain, then shovel the grain into another pile so as to mix it thoroughly; then sprinkle and shovel again. Repeat this operation until every grain is moistened by the solution. Just enough of the solution should be applied to thoroughly wet every grain, but not enough to make the grain wet and soggy. In treating small quantities, use proportional amounts of the formalin solution. After the grain has been thoroughly sprinkled, cover the pile with bags or sacking that have been sprinkled with or soaked in a formalin solution and leave for three or four hours. At the end of this time spread the grain out thinly to dry. Shovel it over three or four times to hasten the drying. Forty gallons of the formalin solution is sufficient to sprinkle between fifty and sixty bushels of grain.

### AVOID WET, SOPPY GRAIN.

"The objection to treating with formalin solution is that there is great danger of injuring the vitality of the seed. It is not wise to use formalin solution stronger than 1 pint to 40 gallons, and care must be taken not to apply too much of it to the grain. To secure satisfactory results, just enough of the formalin solution should be applied to moisten every grain, but not enough to make it wet and soggy.

"Loose smut of wheat cannot be prevented by treating the seed with blue-stone or copper carbonate dust. The easiest way of avoiding loss from this smut is to secure seed from a field or district where loose smut is not present. Such seed would produce a crop free from this smut. If loose smut is bad and it is impossible to secure seed free from infection, it may be necessary to establish a seed plot and treat the seed with Jensen's Modified Hot Water Treatment."

### Winter Eggs.

As the days get shorter and shorter it becomes increasingly difficult to keep the hens and pullets laying at a rate that will prove profitable.

"Not only is the day too short for the best health of the flock, but the relatively small capacity of the hen's crop means that at this season she is very likely not to eat enough to supply her with the requirements for maintenance and also leave a surplus for egg production.

Furthermore, the long nights of inaction on the roosts, combined with relatively close confinement and the use of concentrated feeds may bring about digestive disorders that mean low egg production. The birds should therefore be watched carefully for signs of trouble of this sort.

If artificial light cannot be used in the henhouse it will pay to lengthen the working day as much as possible in other ways. Ample open front should be provided to make the houses light and to admit a maximum of direct sunlight.

The night feeding of scratch grain should be given as late in the afternoon as may be possible while still giving the hens time to clean up the feed before dark. The practice of throwing the morning's allowance of scratch grain into the litter after the hens are on the roosts at night may well be followed.

This latter scheme has the effect of getting the fowls down off the roost and busy at work just as soon as it is light enough for them to see to find the grain.

### Chicken a la King.

This is a particularly fine recipe for the always popular chicken a la king. Another nice thing about the dish, the directions for which are given below, is that it is just as good, even better, when reheated the following day.

Four tablespoonfuls of butter, 3 tablespoonfuls of minced green pepper, 3 tablespoonfuls of flour, 1/2 teaspoonful of paprika, 1 tablespoonful of salt, 2 cupfuls of thin cream, 2 1/2 cupfuls of diced cooked chicken, 1/2 can of mushrooms.

Melt the butter and cook in it the green pepper until the latter is soft. Stir in the flour and seasonings. Add the cream gradually, stirring constantly. When boiling, set over hot water and add the chicken, mushrooms and pimientos.

Serve in ramskins, patty shells, or on toast.

To prevent mold, ozone machines are now used in poultry feeding-pens. These machines make the air sweet at all times. They are operated by electricity—just stick a wire in the light socket.

### Succulent Roughages for Finishing Lambs.

The proper time to sell the lambs is when they are finished, says the Dominion Animal Husbandman, who continues: Succulent roughages play a very large part in profits from lamb finishing. Generally speaking, good succulent roughages, such as turnips, mangels, sugar beets, corn ensilage, pea and oat ensilage, or the like, make the dry roughages and grains more palatable and more digestible. Again, these roughages are cheaply grown and are rich, nutritious foods in themselves. Where corn ensilage can be raised for two dollars per ton it is the cheapest and best succulent roughage for lamb finishing. When fed with clover hay and grain it will produce five per cent. greater profits than a mixture of turnips, clover, hay and grain. But a mixture of turnips and ensilage with hay and grain will usually give the greatest profits. The turnip is the safest root to feed in finishing lambs, particularly where wetters or even ram lambs may be found in the pens. Mangels may have a dangerous influence on the kidneys of wetters and rams.

### Disease-Free Potato Seed.

Efforts made by the Dominion Experimental Farms and Stations to bring about seed potatoes immune to disease have, at least been partially successful. Five years ago the Garnet Chili, imported by Bermuda from this country, was found unsatisfactory because of leaf-roll disease present in the seed stock. An attempt at rejuvenation was not found satisfactory and was discontinued. Hill selection has, however, resulted in the production of plots of vigorous seed from which diseased and weak plants have been eliminated and which have given thirty per cent. increased yield over unselected stock. Mr. W. K. McCulloch, District Inspector, in his report to the Dominion Botanist. A steady improvement has taken place in the Garnet Chili stock as a whole, and in 1925, the Director of Agriculture for Bermuda reported the seed as being the best ever imported. A start has also been made to isolate disease-free, high yielding pure lines of Irish Cobbler, Green Mountain, Bliss Triumph, and Garnet Chili varieties. The majority of selected units, reports Mr. McCulloch, have retained their disease-free character for two seasons and it is hoped in time to have a disease-free nucleus of many of the popular varieties.

### A Bee's Life.

Of the five weeks of life allotted to the average bee, three weeks are devoted to duties within the hive.

## S.S. LESSON

October 10. The Reports of the Spies. Num. 13: 1 to 14: 43. Golden Text—We are well able to overcome it—Numbers 13: 30.

### ANALYSIS.

I. THE DEPARTURE FROM SINAI, 11-13.  
II. RETURN AND REPORT OF THE SPIES, 13:23-33.  
III. MURMURING OF THE PEOPLE, 14: 1-46.

**INTRODUCTION**—The journey of Israel was in a northerly direction from Sinai. It was through a barren and rugged country, and for so large a company of people there must have been many hardships. Chs. 11 and 12 give us some idea of these hardships, and of the discontent and murmuring of the people. There was havoc wrought by lightning (11:1-3), there was discontent on the part of the "mixed multitude," the non-Israelites who had attached themselves to Israel, with the scanty fare of the desert (11:4-6), and now there is fear of the unknown and powerful people who are expected to dispute their entrance into the Land of Promise.

**I. THE SENDING OF THE SPIES, 13:1-22.**  
"Send thou men." The people had now reached the southern border of Canaan, or western Palestine, and had seen the perils of the great adventure upon which they had embarked. It is interesting to note here that the counsels of ordinary prudence, and good sense are regarded as the voice of God. God spoke then as he does to-day to the hearts and minds of men, and they recognize his voice in their own inner and spiritual experiences.

"Of every tribe." This was no doubt necessary in order that there might be no jealousy or suspicion or partiality on the part of their leader. The task of spying out the land was evidently regarded as one of honor and responsibility, and only men of princely rank were chosen. There was, probably, no great danger, as they would go through the land disguised as peaceful travelers. The two deserving of honorable mention are Caleb, of the tribe of Judah, and Joshua (or Hoshea), of the tribe of Ephraim.  
"The south" (v. 17), or rather the "Negeb" was a wild and uncultivated country in the extreme south of Palestine. Through it the spies would pass into the mountains about Hebron and northward. The country explored by them, according to vs. 21-22, extended as far as Beth-rehab, at the foot of Mount Hermon, and the valley between Lebanon, and Hermon here called "the entering in of Hamath."  
**II. RETURN AND REPORT OF THE SPIES, 13:23-33.**

"The valley of Eschol" is the "vale of the grape-cluster." Its site is unknown, but it was evidently famous for the abundance and quality of its grapes. The one cluster which they brought with them had to be carried on a pole or staff between two men. "The wilderness of Paran," to which they returned, seems to be identical with, or near to, "the wilderness of Zin," mentioned in v. 21 (compare 20: 1). "Kadesh" has been identified with an oasis about seventy miles south of Hebron which bears a closely similar name.

"It floweth with milk and honey." This was their poetical way of describing a rich and productive country, which seemed to them all the more attractive by contrast with the barren land through which they had passed. Compare Deut. 8: 7-9 and 26: 9 and 16. But they reported also the presence of a strong people and strongly fortified cities.

"The children of Anak" were apparently a very tall people. The name means, literally, "sons of neck," or "long-necked." The account given of the strong people and their fenced cities appears to have aroused a clamor of excitement and fear. But Caleb still the people before Moses. His was the calm, strong voice of courage and of faith. "Let us go up at once and possess it; for we are well able to overcome it." He had "another spirit" with him; "he wholly followed the Lord" (14: 24; Deut. 1: 38). Compare the entire story as told in Deut. 1: 19-46.

"An evil report." Apparently, in spite of the evidence of the fruit of the land which they had brought, there were some of the spies who declared that it was not a fertile or productive land. "It eateth up" its inhabitants, they said. They sought to justify their fears, both by degrading the land and exaggerating the size and stature of the men who lived in it. Their report was false, a cowardly report. The word "Nephilim" (v. 33), is borrowed from Gen. 6: 4, and is used of giants.  
**III. MURMURING OF THE PEOPLE, 14: 1-46.**

The faint-hearted multitude "murmured against Moses and Aaron," just as the cowardly and faint-hearted of to-day throw the blame of national calamity upon the government. Only rarely is such murmuring justified. A calamity is to be bravely borne, a difficult situation is to be bravely met. Better, said the panic-stricken mob, return to the bondage of Egypt than fight the hard fight for freedom. The courageous Joshua took his stand with Caleb, and both stood joyfully by Moses and Aaron. It was a contest of faith with fear. In characteristically bold language they sought to put heart into the people, saying: "Have no fear of the natives—we shall eat them up; their protection has failed, and the Lord is with us; fear them not" (Moff. att.). But the answer of the mob was a volley of stones. The Lord's judgment was a sentence of forty years of waiting, and for almost all death in the wilderness.

### Delicious Lunch Dishes.

A very digestible and delicious sweet for the school lunch can be quickly evolved while making the breakfast biscuits. Use a small cutter and make part of the dough into tiny biscuits. Turn them in melted butter, then in sugar and cinnamon, and bake.

## PARTY CAKES FOR THE JUVENILES

BY MINA LOWMAN.

Since there isn't a very wide field from which to choose the refreshments suitable for children's parties, little surprises in the way they are served are always hailed with delight. Instead of the usual candies for the birthday cake the decorations may be varied from time to time.

A charming effect may be had by icing the cake in the usual way. Before the icing hardens stand a big stick of striped candy in the centre and around the edge of the required number of tiny dolls. To the top of the stick of candy attach as many lengths of narrow ribbon of different colors as there are dolls. Each little doll needs a ribbon and the miniature Maypole is complete. Each child receives a doll for a favor.

The little animal cakes make a nice decoration. Dip half in melted chocolate or cover with icing and lay on wax paper to harden. Alternate chocolate and plain, or any color preferred, around the base of the cake while the icing is soft enough to permit them to be pressed into it. Around the edge of the top make a ring of tiny sticks of candy and use these as supports for standing animals. The candies can go inside, or instead of candies larger sticks of candy may be used. When the cake is cut an animal and a stick of candy go to each child with the piece of cake.

Another decoration that makes a great hit, not only with the children but grown-ups as well, consists of tiny turtles. To make these select the largest seeded raisins, pressing them into shape and rounding the tops slightly. Remove the bud from four cloves and

stick two on each side of the raisin, claw end down, to represent feet. Use one with the bud on for a head and break the bud and claws from another which forms the pointed tail. Arrange on cake before icing hardens. Larger turtles may be made from prunes, the best ones for this purpose being the French prunes which can be eaten uncooked, but the ordinary ones may be used by soaking overnight and drying them with a clean cloth. Two or three of these are very effective crawling over the children's plates. Animal cakes may be used in another decoration. Ice small round vanilla wafers and on each one stand a pair of the animal cakes. A procession of these may lead to a tiny Noah's ark.

A novel way to serve ice cream is in edible baskets. Use your favorite recipe for cup cakes. When cool scoop out the centre, leaving a rather thick shell. These may be used plain or iced with colored icing. Handles for baskets may be made of strips of orange or grapefruit peel. When ready to serve fill baskets with ice cream and serve on a small plate.

## THE SECRET PLAN

BY EDITH BAILEY.

### A SUNSHINY AFTERNOON.

The entire afternoon was as sunshiny as the morning had been. Half a dozen times or more James found opportunities to try out his plan. The very best time of all, however, came during his play hour in the evening. He had gone down the street on his pony to find his friend, Joe, when he overtook a little fellow far smaller than he, carrying a big sack of newspapers.

"Hello, want some help?" James asked.

James was a stranger to the other boy and he answered rather doubtfully, "I don't know."

"Tell me where you are taking your papers, and I'll carry them for you and let you ride, too."

"Will you really? Oh, that'll be great!"

"Hop up, then. Here we go."

James rode with him over the entire route, helping him throw his papers, and then took him home.

"You're a fine Scout for sure," said the boy. "You don't know how glad Mother will be to have me home early."

"Maybe I can help to-morrow night," suggested James.

"That would be great! You see, I'm helping on another boy's route, but he'll be back after to-morrow night. My own route isn't so heavy, but his and mine together sure is big. Didn't we have a plan?"

"We certainly did, and I'll be with you to-morrow night. Bye," and James was off for home.

That evening when he had finished his lessons and was about to go upstairs, his mother said:

"James, you don't know what a wonderful help you have been to me to-day. This morning I was so worried and troubled, I didn't know how to get through, but you have been so cheery you've driven the clouds all away."

"Oh, it was all my 'Secret Plan'!" James beamed. "Want me to tell you about it?"

"Indeed I do!"

"I didn't know, though," James explained, "that it was going to help my best friend." A vigorous embrace proved how glad he was that he had helped.

"Well," he continued, "this morning, when I saw the sunbeams dancing to make us happy, the leaves swinging about to make shade for us, the birds singing, the clouds making the sky pretty, all for us, I began thinking: 'Why, everything is doing something to make somebody happy—and it seems they're having a good time while they're doing it too—so why can't I?'"

"So, I've been trying, Dearie, and I've had one big day. But isn't it funny how I never saw all those chances before to make others happy, and I saw them to-day without looking for them?"

"Perhaps you weren't thinking so much about James," said his mother slowly, "and had more time to think of someone else."

"Maybe that was it," he agreed. "But it's so much fun keeping your eyes open for chances to help, I think I'll keep on looking. What do you say, Dearie?"

Touch your coat to stand and to lead before taking it into the show-ring. Teach it to walk and go through all the paces that the judges will ask for. Grooming the coat, combing and decorating the mane and tail, add to the colt's appearance.

Moths do not eat clothes. This is done by the grubs which develop from the eggs the moths have laid.



### THE TIGHTLY DRAPED HIPLINE

A graceful model emphasizing the important new silhouette of tightly draped hips, and a skirt that is frankly full all around. The broad girdle is gathered into a buckle in front, and bishop sleeves lend grace. The versatile collar tying with a bow, and shirings in the shoulders are arresting details, which go toward fashioning this chic frock. No. 1806 is suitable for misses and small women and is in sizes 16, 18 and 20 years. Size 18 (36 bust) requires 4 1/2 yards 39-inch material. 20 cents.

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### Gathering Seedlings for Winter Bloom.

Few people realize the possibility of carrying the common garden annuals through the winter. In late September and early October, hundreds of small plants, seedlings, will be found about the annual beds in the garden. Petunias spring up like weeds; calendulas seed themselves profusely, even sweet pea seedlings will be found. Before the earliest frost can possibly hit them, the desired seedlings will be of sufficient size to take up. They should be carefully potted, precaution being taken to have almost an inch of pebbles at the bottom of the pot for drainage. They should be put in the shade after planting until they are established. When they are finally at home in their new position, they may be placed anywhere out of doors, and will be seen to develop quickly. When they are brought into the house, before the heavy frosts, and placed in a sunny spot, they begin almost at once to flower, and if the withered blossoms are kept picked, will bloom profusely all winter.

### English primroses (cowslips), forget-me-nots, and the lovely bellis perennis (English daisy) may be brought in in the same manner. These, however, will not begin to flower till after Christmas.

### A Way of Preparing a Round Steak.

Beat in flour. Have the roaster ready with enough grease to cover the bottom. Put the steak in the hot grease and let it brown on both sides. Heat a small can of tomatoes together with a small onion. Add a cup or more of water, as the sauce should be very thin. Pour this over the hot steak, cover, put in the oven and bake slowly for 1 1/2 hours. This has a better flavor than when tomato soup is used for a sauce.

### The Federal Dept. of Agriculture

has been notified that two Canadian bullocks recently carried off the first prize for the best pair not exceeding 14 cwt. and first and second prizes for the best butcher's beast on exhibit in the Aldborough and Boroughbridge Agricultural Show in England. This is considered of more than usual importance indicating that the store cattle shipped from Canada to Britain and finished off there can compete with the best bred in that country.

Probably 600 strokes are made per second by the wings of a fly.