

Your Problems

Conducted by Mrs. Helen Law

Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with each question and its answer as a means of identification, but full name and address must be given in each letter. Write on one side of paper only. Answers will be mailed direct if stamped and addressed envelope is enclosed. Address all correspondence for this department to Mrs. Helen Law, 233 Woodbine Ave., Toronto.

Patriot:—1. The new Trench Cap is not nearly as long or bulky as the old "Balacava." It reaches just to the neck, and is designed for wear under the helmet by day, and as a sleeping cap by night. You will require about a quarter of a pound of wool—Canadian Khaki yarn at \$1.75 a pound, or five-ply Beehive at 28 cents a skein would be suitable. Here are the directions: Cast on 96 stitches, 32 on each needle. Rib 2 and purl 2 for 25 rows. Knit 6 and purl 2 for 22 rows. Narrow second stitch on each end of needle until you have 4 stitches on each needle. Then thread the end of the wool with large darning needle and button-hole around the 8 left, leaving a small opening on top of cap. 2. I offer the following suggestions for the eleven-year-old brother's birthday party which you wish to make a patriotic affair. Write the invitations to the party, on plain white paper, with a small flag in one corner. Have your table set with red, white and blue place cards, a white cloth and a centerpiece of red, white and blue flowers. The birthday cake may be decorated with the flags of the Allies. For one game you could have a sort of "history bee," like a spelling bee. The prize should go to the child who can tell the greatest number of historical events correctly—for instance, who were the generals at the Battle of the Plains of Abraham, who was Sir Isaac Brock, who made Ottawa the capital of Canada, what event are we celebrating this year, etc. The prize should be something that has to do with the war—a war picture or a small silk flag. The other games should all have something to do with the country or the war, and of course, the singing of "The Maple Leaf," "Rule Britannia" and "O Canada" ought not to be omitted. Before they leave the children should sing the National Anthem, all standing in attention.

Sara:—1. Cornmeal dumplings may be made as follows: Scald a quart

of milk, stir in three cupsful of Indian meal, or enough to make a stiff dough. Cook for five minutes, stirring often from the bottom. Take from the fire, beat in one-half cupful of powdered sugar with a tablespoonful of salt and let it get perfectly cold. Then add three eggs, beaten light, with two table-spoonful of sugar, and, lastly, a table-spoonful of flour sifted three times with half a table-spoonful of baking powder. Make out into balls the size of an egg, flour your hands, wrap in clean cheesecloth squares. The dumplings will double their size in boiling, so make all allowance in tying them up. Boil one hour hard. Dip into cold water for a second, turn out and serve with hard sauce. 2. An application of hydrogen peroxide will take scorch stains out of silk. Potassium permanganate followed by sulphuric acid will also remove them. I am sorry to say, however, that with the removal of the scorch stains the color of the waist is apt to be injured. If you find that this is true, it will be necessary to dye the blouse. 3. You can remove match marks from white paint by rubbing them with a piece of cut lemon.

Home-Maker:—A well-balanced dietary supplies body-building, heat-and-energy-supplying and regulating substances in the right proportion and in sufficient quantity. Simple meals can fulfil all requirements. It is wiser to spread the variety of food over many days than to provide many kinds of food in each meal every day. Following are examples of simple but well-balanced meals:—1. Fruit, oatmeal and whole milk. 2. Egg, bread, butter, fruit or vegetable. 3. Bread, cheese, tart fruit. 4. Baked beans, brown bread, apple sauce. 5. Mutton, potatoes, second vegetable, fruit batter pudding. 6. Milk soup, corn bread and syrup. 7. Whole wheat bread, whole milk, prunes. These are not ideal for all ages and conditions, but they meet the needs of healthy active adults.

Poultry

Market Calendar

If not commenced previously, crate fattening should be started in October, and all cockerels and pullets intended for sale carefully and systematically fattened.

Market in October roasters (crate fed), last old hens, roasting young ducks, old geese, old turkeys.

In mixing a ration for crate feeding poultry, one of the first things to consider is the palatability of the feed. If the birds do not like it, they will not eat enough to put on the flesh. Next to this comes the composition of the feeds and their cost. The ration must be palatable and one that will produce flesh without costing too much.

Clean, fresh water lessens disease.

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Poultry Hint.

Lady (unaccustomed to poultry life)—How long must my hen set on eggs?

Friends—Oh, three weeks for hens and four for ducks.

Friend (a few weeks later)—Well, how are the chickens progressing?

Lady—There weren't any at the end of three weeks, so I took the hen off, as I didn't want ducks.



Pears

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ECONOMIC PRODUCTION OF WHEAT IN RELATION TO FOOD PRODUCTION

By Henry G. Bell, Agronomist.

Civilization is in the balance. At no time in the world's history has so critical a period faced the peoples of the earth. The fundamental principles of democratic nations must now be successfully defended or democracy is destined to vanish from the earth. The triumph of civilization depends upon man, munitions, food and a patriotic devotion to the cause. Not one of these factors must be neglected or triumph will rest with our enemies. The farmers of this continent and of Europe have done nobly during the past year, but gigantic problems face them in the coming months.

The Canadian Commissioner of Agriculture has recently made a statement that Canada will be prepared to export at least 300,000,000 bushels of 1917 wheat. The wheat crop of the United States will probably total 668,000,000 bushels, of which at least 450,000,000 will be necessary for their own needs. Recent reports from the International Bureau of Agriculture, Rome, indicate an increase in wheat for British India, of over 16%. Favorable wheat reports came also from Italy. A year ago a vigorous campaign for larger wheat acreage in the United Kingdom was successfully carried out, but unfavorable weather has damaged the British wheat crop to so great an extent that in July it ranked 94% as against an average crop estimated at 100%. It is obvious that the entire people of this continent must exercise every energy in conserving food; farmers, every intelligence in producing more food; bakers, every economy and device in making the food stock go as far as possible so that the needs of our own and allied people may be met.

Methods of Increasing Crop.

The question the farmer is asking to-day is, how can I economically increase my wheat yield? My answer is in five divisions; first, by drainage. Winter-dilling is frequently caused by surplus water not being able to run off or percolate through the soil, and as a result, freezing about the young wheat plant. Second: proper soil tillage. The advantages of proper seed-bed preparation are so apparent that it is unnecessary to go into a detailed discussion of the profit of good tillage in wheat production. If the soil is to catch and hold a sufficiency of moisture, it must be deeply stirred and thoroughly pulverized. Such tillage will allow for the desirable circulation of air, which is required for seed germination, and for the life of the beneficial soil bacteria at work in the area where the grain roots stretch out in quest of food. Thorough stirring of the soil allows for maximum root growth with the consequent development of a strong crown, which in itself goes a long way to providing the crop with strength to withstand the cold weather of autumn and winter. The third method of increasing the wheat yield is by the selection of proper varieties of wheat and high-grade seed of those varieties. Soft wheat produces, as a rule, weak flour. Soft, plump, flinty wheat of either spring or winter varieties produces flour that rises well in the pans, and produces bread of fine texture and quality. The fourth method of wheat increase is by proper soil fertilization. Men cannot work without food, neither can crops. The tiny wheat plant must be supplied with a sufficiency of suitable, well-balanced plantfood just as much as the fighting soldiers at the front must receive an abundance of well-balanced diet.

The Question of Plantfood.

What can be done then to increase crop yields through attention to plantfood? First of all, the farmer can give the soil the most careful tillage, as already stated, which operation will of course bring as much of the soil plantfood as possible into shape for its consumption by the plant. Second, every grower of wheat should, as far as possible, manure his wheat fields. Livestock manure supplies three of the important constituents of plantfood, nitrogen, which causes the wheat straw to grow; phosphoric acid, which hastens the ripening of the crop and plumps the kernels; and potash, which gives strength to the crop to resist plant diseases and hastens the filling of the kernel. A shortage in any one of these constituents of plantfood produces wheat of poor quality. In this connection it should be carefully noted that livestock manure, while it is good for most crops, it is somewhat unbalanced for the production of wheat, in that it carries a relatively large amount of available nitrogen, a medium supply of potash, but a relatively short supply of the constituent of plantfood that causes the crop to ripen, phosphoric acid. Investigations have shown, therefore, that the farmer can very profitably supplement farm manure with an addition of acid phosphate. Such an addition reduces relative straw growth and increases the production of grain. (Concluded next week.)

The Dairy

ment of Agriculture were used as the basis for these figures.

Labor, interest and miscellaneous overhead expenses must be added to this feed cost. The two-year-old heifer must be credited with a calf and the manure produced during two years. The net cost at medium prices is then given in the bulletin as \$44.77 for the first year and \$29.08 for the second. At present high prices the net cost for two years rises above \$100.

Economy in dairying and care in breeding only good stock are therefore necessary. The heifer from a low-producing dam and an inferior sire will not return the cost of her production and maintenance.

We may be certain that milk and its products will command relatively higher prices after the war than will grain and millfeeds, which are now at a premium.

There is this great point in favor of dairying: It brings in revenue every month of the year, and in every month the dairyman knows just what his income from that source is going to be. There is another important point: Dairying is a safe line; there are fewer ups and downs and fewer exceptional losses in it than in any other branch of farming.

What does it cost to raise a dairy heifer to one year and to two years old?

Feed alone at medium prices costs about \$33 for the first year and \$28 for the second. Cost accounts of raising calves by the Ohio, Massachusetts and Connecticut Experiment Stations and the U. S. Department

Farm Crop Queries

Conducted by Professor Henry G. Bell

The object of this department is to place at the service of our farm readers the advice of an acknowledged authority on all subjects pertaining to soils and crops.

Address all questions to Professor Henry G. Bell, in care of The Wilson Publishing Company, Limited, Toronto, and answers will appear in this column in the order in which they are received. As space is limited it is advisable where immediate reply is necessary that a stamped and addressed envelope be enclosed with the question, when the answer will be mailed direct.



Henry G. Bell

A.E.P.:—We are going to sow wheat this year on a piece of muck land. It has had timothy hay cut off it for three years, a very good hay crop each year. This summer it was ploughed as soon as the hay was taken off and has been thoroughly disced and cultivated since. It is a muck with sand bottom. We had no fertilizer to put on, and would like to know if a basic slag or a phosphate would be suitable, either one or both.

Answer:—The soil on which you are planning to grow your wheat is relatively low in nitrogen and will undoubtedly give you a strong growth of straw. I would advise you to add at least 200 to 300 lbs. of fertilizer carrying 10 to 12% acid phosphate and 1% potash. You have handled the soil correctly in preparing it. I would impress upon you the importance of giving the seed-bed thorough preparation. If the soil tends to be too open and light, follow the sowing with rolling and then a light harrowing. I have advised acid phosphate since I believe you need a readily available form of phosphoric acid.

A.M.C.:—I have quite a number of celery plants which began to go to seed three weeks ago; I tried cutting off the seed top as soon as it appeared but it merely grew up again. I sowed the seed of this in boxes the last of February, 1917, and set the plants out in the open ground about the middle of June in clay soil which had been an old pig yard before. We dug trenches ten inches deep putting in the bottom five inches of rotted manure mixed with a little earth and planted them in this. Now they are grown to a good height, are kept hilled and look healthy plants but would like to know the cause of it going to seed and how to prevent it.

Answer:—The cause of the celery plants going to seed is that the habit of the plant has been changed. In its wild state the celery plant tends to be an annual. The gardener grows it as a biennial, that is, he tries to get the full grown plant without the seeds. You see the same habit in wheat when you plant winter wheat seed or winter rye in the spring. Very few of the plants send up shoots the first year, but some do. If you select the seed from the plants which send up heads the first year, by the second and third generation you will have entirely changed the habit of the plant and

and when she got there she found that Evelyn's dog had eaten her beloved chicken.

This taught Dorothy a severe lesson, and now she has lost the title of Dilly-Dally by being always on time.

When her uncle heard of this he bought her another chicken, and we may hope that Dorothy will take better care of it than she did of Fluff.

The Country Girl's Creed

I believe that life in the country is life at its highest, fullest and best. I believe that there I have the greatest chance to develop into the womanly woman I desire to be—fine, broad, sweet, true, wholesome. I believe that the broadness of the country, the ruggedness of the landscape, the beauty of God's growing things all around me, will mold and temper my character; will give me higher ideals, a greater depth of thought and a truer perspective of life, than I could ever gain between narrow walls in a city with its shams, pretences and false standards. I want to try always to live up to the very best there is in me; to make the most of every opportunity to grow bigger, broader and better; to reach out always for higher and finer things. I believe in good hard work and plenty of it. I glory in the brain and the muscle with which to accomplish my task of striving and overcoming, that I may be ready for the harder things which are to come.

In the Fourth Generation the King's Descendants Will be Just "Mister."

When King George assumed the family name of Windsor, he took a more democratic step than at first appears. It means that the male descendant of the Sovereign will be commoners in the third generation, with a courtesy title as the sons of dukes, and plain Mr. Windsor in the fourth generation. The substitution of a family name was necessary in view of the recent abolition of princely titles for the younger generations in descent from the Sovereign, and no better choice could have been made than that of Windsor.

The fame of Windsor goes back to Saxon times. The Castle has always been associated with the successive Royal Houses of England—the Queens Victoria, King Edward VII. and King George's brother, who would be reigning to-day had he lived, are buried there, and for these and many other reasons Windsor is a lodestar to those who have gone forth from these islands and have made the British Empire. Soldiers from the Colonies all want to see Windsor, and make a pilgrimage there before they have been very long in the Mother Country. There has been a great deal of reverent and grave writing about historic Windsor and its memories; but one of the stories that is indelibly associated with Windsor is that told of Queen Victoria and the landlady. It was there that the Queen, very much struck by a tune the landlady was playing, sent a courier to ask its name. The conductor was a little confused, but, being pressed, he at last burst out: "Well, if her Majesty must have it, it's 'Come where the Boozie is Cheap.'"

Buying a Metal Hedge.

The late Prof. Henry A. Ward, of Rochester, famous as a scientific collector, was on one occasion travelling through a rural district in Japan when, in front of a humble cottage, he saw a queer-looking hedge that shone and sparkled in the sun. The hedge looked like a row of metal—current bushes; but on examination he found that the "bushes" were in reality composed of crystals of bright antimony—a form of this silver-white metal so rare that only a few bits of it were at that time in the possession of museums and collectors. He bought the whole hedge for \$75, afterward selling one-half of it for enough money to pay for a year's tour through odd corners of the world.

The Doings of the Duffs.

