

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.

Question—F. P.—(a) What fertilizer would you suggest for corn in medium soil, and how much? Have no manure. (b) What is the best kind of soil for buckwheat, and when is the best time to sow, and how thickly?

Answer:—(a). For corn on medium soil I would advise from 300 to 500 pounds per acre of fertilizer carrying 1 to 2% ammonia and 8 to 12% available phosphoric acid, and possibly 2 to 3% potash. This is best applied when preparing the bed for the planting of the young vines. When the ground has been thoroughly disked this available plantfood should be drilled in through the fertilizer dropping attachment of the wheat drill, or it should be broadcasted over the proposed strawberry bed and thoroughly disked and harrowed in. When the young vines are set they will profit greatly by the added vigor obtained from this available plantfood. As a rule, top-dressing growing strawberries has not been the most profitable way to apply.

Question—M. C.—What is the best way to get rid of wild mustard?

Answer:—A practicable way to get rid of mustard is to spray the young plants before they come into flower. For this purpose a spray machine such as is used for spraying potatoes might be used. Empty a 100-pound sack of sulphate of iron into a kerosene or vinegar barrel. Fill it up to the chine with water and stir until the sulphate of iron is dissolved. Strain the solution through several thicknesses of cheese-cloth when pouring it into the tank of the spray machine. To be most effective, it is well to apply 52 gallons of this material to the acre. The more powerful the spraying machine the better, since the mist is most effective when divided into finest particles. A pressure of 80 to 100 pounds at the nozzle should be maintained. A two-horse spraying machine will spray from 20 to 100 acres of grain in a 10-hour day. In actual tests which have been carried out, this method of treatment has proven very efficient in killing out this troublesome weed. It does not hurt the grain crop.

Question—T. L.—What is the best fertilizer for strawberries, and when should it be used, on the vines that are bearing this year or the vines to be set out this year?

Answer:—In fertilizing strawberries, good results are obtained by using from 400 to 600 pounds per acre of fertilizer analyzing from 2 to 3% ammonia and 8 to 12% available phosphoric acid, and possibly 2 to 3% potash. This is best applied when preparing the bed for the planting of the young vines. When the ground has been thoroughly disked this available plantfood should be drilled in through the fertilizer dropping attachment of the wheat drill, or it should be broadcasted over the proposed strawberry bed and thoroughly disked and harrowed in. When the young vines are set they will profit greatly by the added vigor obtained from this available plantfood. As a rule, top-dressing growing strawberries has not been the most profitable way to apply.

ries, good results are obtained by using from 400 to 600 pounds per acre of fertilizer analyzing from 2 to 3% ammonia and 8 to 12% available phosphoric acid, and possibly 2 to 3% potash. This is best applied when preparing the bed for the planting of the young vines. When the ground has been thoroughly disked this available plantfood should be drilled in through the fertilizer dropping attachment of the wheat drill, or it should be broadcasted over the proposed strawberry bed and thoroughly disked and harrowed in. When the young vines are set they will profit greatly by the added vigor obtained from this available plantfood. As a rule, top-dressing growing strawberries has not been the most profitable way to apply.

Question—M. C.—What is the best way to get rid of wild mustard?

Answer:—A practicable way to get rid of mustard is to spray the young plants before they come into flower. For this purpose a spray machine such as is used for spraying potatoes might be used. Empty a 100-pound sack of sulphate of iron into a kerosene or vinegar barrel. Fill it up to the chine with water and stir until the sulphate of iron is dissolved. Strain the solution through several thicknesses of cheese-cloth when pouring it into the tank of the spray machine. To be most effective, it is well to apply 52 gallons of this material to the acre. The more powerful the spraying machine the better, since the mist is most effective when divided into finest particles. A pressure of 80 to 100 pounds at the nozzle should be maintained. A two-horse spraying machine will spray from 20 to 100 acres of grain in a 10-hour day. In actual tests which have been carried out, this method of treatment has proven very efficient in killing out this troublesome weed. It does not hurt the grain crop.

Question—T. L.—What is the best fertilizer for strawberries, and when should it be used, on the vines that are bearing this year or the vines to be set out this year?

Answer:—In fertilizing strawberries,

Sheep Notes

Sheep will turn to profitable account more waste products than will any other class of farm animals. A sheep has a low nervous organization, and once neglected gives up with little effort. But kept in thrift with good care it will be as hardy as any other animal.

This is the season of the year when sheep need most care and labor. Reasonable attention in the lambing season will save a heavy mortality. A good shepherd will raise a 125% lamb crop. Don't forget the spring dipping. Although other work may demand attention, yet this is the one phase of sheep husbandry that should never be neglected. Shear fairly early, at least before

the very warm spring days arrive, and thus save the ewe discomfort and loss in weight. With wool as valuable per pound as butter, the greatest care should be taken to produce the cleanest, best fleece and properly care for the same after shearing. Co-operative marketing will add from two to eight cents per pound revenue from your wool.

Give the lambs an extra good start on grass. A lamb creep in the corner of the pasture and light grain feeding will usually be found most profitable.

Willie Only Resting. He had yelled steadily for twenty minutes. Then he stopped, and all was quiet. "I am glad to see you have stopped crying, Willie," said his mother. "I ain't stopped," exclaimed Willie, indignantly. "I was only restin' Yaanaaaaaa."

TRAINING THE PRECOCIOUS CHILD

Great Wisdom is Needed That the Brilliant Child May Be Well-Balanced and Win Success in Later Life.

Whenever we meet an unusually bright or precocious child, there is sure to be some fond and admiring friend or relative hovering near, anxious to "show it off." As a matter of fact, the child of average ability is in much less danger than the backward or precocious one.

The backward child may not be understood or it may not have the most intelligent methods used in its management. For this reason, such a child may fail to achieve as much as he might under favorable circumstances. However, no one expects very much of a deficient youngster, and if he is given healthful surroundings, good care and sympathetic understanding, his handicap may in time be partly overcome.

Very often the child who is exceedingly bright in certain respects, is decidedly average otherwise. If you press a ball in at one point, it will bulge out on the opposite side. The bulging or noticeable characteristic is pretty sure to be balanced by a dent somewhere. This may be the reason that many people who are really brilliant in some directions are not well-balanced or evenly developed all around.

There is also grave danger that precocious children may have too much expected of them and be urged beyond their normal capacity. A little boy who was fond of music and who really did exceptionally well with his violin lessons was urged to long periods of practice and encouraged to take part in many public entertainments. These things were accomplished at the cost of play and sleep. The child developed a nervous trou-

ble and was obliged eventually to give up both school and music. It is frequently remarked that the pupil who is unusually brilliant in school, winning much favor and many honors, is not always a success in later life. There are reasons why this is often so. If book knowledge comes too early through an extra good memory or the ability to see through a problem quickly, little mental training is given, and when that individual goes out into the world, superficial methods and the expectation of getting much and giving little, do not make for success.

The precocious child is in danger of becoming over-confident, egotistical, lacking in thoroughness, and patronizing in manner. Too often such children do not develop the mental and moral fibre which effort and discouragement, more determined effort and final victory bring out. One star pupil was recently heard to boast that he could stay out of school three days, attend one day, and still keep up with his class. It may be the old story of the hare and the tortoise. He is gaining a contempt for educational advantages and is likely to be handicapped for life with the idea that persistence and conscientious effort are not necessary for him.

Teachers often remark that they are the best instructors in the subjects which were hard for them to learn as pupils. They know where the difficulties lie and how discouraging they are.

Great wisdom is needed in handling the precocious child so that it may be well-balanced and kindly, and realize the necessity of achieving its own best.

LOWER PRICED

ONION SEED HIGH GRADE TESTED ONION SEED AT ONE DOLLAR A POUND LESS THAN LAST YEAR. 80W 5 LBS. SEED PER ACRE. AVERAGE CROP 500 BUSHELS PER ACRE

Yellow Globe Danvers Onion, black seed...oz. 25c, lb. \$2.10, 5 lbs. \$9.25
Giant Yellow Prizetaker Onion, black seed...oz. 25c, lb. \$2.10, 5 lbs. \$9.25
Large Red Wetherfield Onion, black seed...oz. 25c, lb. \$2.00, 5 lbs. \$9.25
Market Maker Golden Globe Onion...oz. 25c, lb. \$2.10, 5 lbs. \$9.25
Early Yellow Danvers Onion, black seed...oz. 20c, lb. \$1.90, 5 lbs. \$8.25
Southport White Globe Onion, black seed...oz. 40c, lb. \$4.00
Red Globe Prizewinner Onion, black seed...oz. 25c, lb. \$2.10, 5 lbs. \$9.25
Select Yellow Dutch Onion Setts...lb. 35c, 5 lbs. \$1.70
XXX Guernsey Paranal, fine smooth roots...Pkg. 10c, oz. 20c, 4 oz. 50c.
Detroit Dark Red Table Beet (round)...Pkg. 5c, oz. 20c, 4 oz. 50c.
Chantenay Red Table Carrot...Pkg. 5c, oz. 25c, 4 oz. 65c.
Rust Proof Dwarf Black Wax Butter Beans...lb. 50c, 5 lbs. \$2.25
Early White Cory Sweet Table Corn...lb. 35c, 5 lbs. \$1.50
London Long Green Cucumber (great cropper)...Pkg. 5c, oz. 15c, 4 oz. 40c.
XXX Solid Head Lettuce...Pkg. 10c, oz. 25c, 4 oz. 75c.
Improved Beefsteak Tomato...Pkg. 10c, 1/2 oz. 35c, oz. 60c
XXX Scarlet Oval Radish (mild, crisp)...Pkg. 10c, oz. 20c, 4 oz. 50c.
Little Marvel Garden Bush Peas, very early...4 oz. 15c, lb. 40c.
Early-Branching Asters, Crimson Pink, White or Mixed...Pkg. 10c
Mammoth Fringed Cosmos, mixed colors...Pkg. 10c
XXX Mammoth Verbenas, superb mixture of colors...Pkg. 10c
XXX Spencer Giant Sweet Peas, all shades mixed...Pkg. 15c, oz. 35c.

"Pakro" Seedtape. "You plant it by the yard." 2 pkts. for 25c. Ask for descriptive list.

Rennie's Seed Annual Free to All. Delivery Free in Canada

Order through your LOCAL DEALER or direct from

RENNIE'S SEEDS Wm. RENNIE Co., Limited

King and Market Sts., Toronto

Also at MONTREAL WINNIPEG VANCOUVER



INTERNATIONAL LESSON APRIL 15.

Lesson III. Jesus The Good Shepherd—John 10. 1-18. Golden Text—John 10. 11.

Verse 7. In studying the other parables of the fourth Gospel, it must be noticed that the Evangelist reports that Jesus in a way of his own, fusing parable and interpretation. Here, however, he has given a parable (verses 1-5) in the original form, and these verses are the interpretation. But the parable suggests two wholly independent applications, which are given successively without any attention to their incongruity, a thing that Jesus in the door: true shepherds and false are distinguished according as they enter through the Door, or "climb up some other way." Recall Milton's use of it, describing Satan's entry into Paradise: "So clomb his first grand theft into God's fold; So since into his church lewd hirelings climb."

8. All that came are thieves (margin)—The addition before me may well have been an attempt to explain a hard phrase. He that cometh was a special name of the Christ: see John 11. 27; Matt. 11. 3, etc. So this means false Christs, who tried to coax the sheep away. But they did not bear the cross. Robbers—Or highwaymen, sheep stealers who will use violence.

9. This will refer to shepherds, not sheep. The true undershepherd (1 Peter 5. 2-4) makes it his business to find pasture for the sheep. He can go in and go out freely, for he goes through the Door (verse 3). To save others, he is promised salvation, for we can be saved only by trying to save others. Compare Phil. 1. 19; 1 Tim. 4. 16. There is a vast multitude of true "pastors"—the word is only the Latin for "shepherd"—who were never ordained by human hands.

10. Cometh—The special sense still lingers about it from verse 8. Have abundance (margin)—Christ never gives just enough: there are always baskets full left over. 11. Here begins what is really a new parable, starting out of the other. A good shepherd, owning the sheep, will risk his life for those sheep, when the wolf comes. The hireling has no motive for doing so: his life is worth more to him than his pay! Before, as well as after, this brief parable, Jesus tells us that such a shepherd illustrates what he is to his own. Layeth down—The tense shows that readiness to face death to rescue the sheep is intended: offers or risks comes nearer to the Greek. It is, of course, in the application of the parable that Layeth down becomes true.

12. Whose own. All turns on this. Hence it is that Peter bids the Lord's undershepherds to "shepherd the flock of God...not for base love of gain, but of free will" (1 Peter 5. 2). 14. This takes up verse 3. Compare the "seal" upon God's "firm foundation" (2 Tim. 2. 19). Mine own—Verse 5 is the converse. One recalls the "true Israelite" of John 1. 47 who instinctively recognizes "the King of Israel."

15. This is the note so often struck in John 17: the Lord applies to us a standard actually drawn from his own relations with the Father. It is essentially like Matt. 5. 48 and Eph. 5. 1. For the sheep. In this context the suggestion is that he rescues his sheep "at the risk of his own life." "Risk" we may still say for in Gethsemane he showed that he could conceive of God's finding at the last moment some other way of accomplishing his purpose. But here that possibility is

barely in sight: He is sure the offered life will be taken, as he is sure that having lost his life he will find it again.

16. This fold—The Chosen People, who thought themselves monopolists of God's mercy. They shall hear, and so prove that they are truly his sheep. They shall become one flock—The margin there shall be is not impossible as a translation of the reading implied in the text: the difference made is slight. One flock—Jerome's extraordinary blunder, one fold, is perhaps the most disastrous translation mistake ever made in history. It was largely responsible for the un-Christian idea that unity consists in external organization instead of the bond of love. In Greek the word flock is derived from the word shepherd: the vital unity of Christendom is in the universal dependence on the One Shepherd.

17. Perfect sacrifice is the condition of perfect love. It was by carrying his obedience "as far as death" (Phil. 2. 8) that the Son won his exaltation. That I may—An addition like that in Rom. 8. 34. There is an unwillingness even to mention the Death alone, lest men should think as Art has so often perserely taught them—of a Dead Christ as the object of our worship.

18. Took it away (margin)—If this reading is right, it is another link with John 17, in which the Lord looks back on his earthly career as closed and lying in the past. Power—Rather authority, derived from God. For without a clear call from God no man has the right to give or even risk the life God gave for his own purpose. Lay it down—A different tense now is used, which justifies this rendering. This commandment—To sacrifice and to resume life alike. Careful study of the Synoptic record of the Passion will show that the Lord was no passive victim. He chose the time of his death (see Matt. 26. 5) and the charge on which he would; lead (Mark 14. 61), when his enemies tried their best to escape both—the former because of the people, the latter because such a charge would not appeal to Pilate, the Roman procurator.

Horse Sense

The symptoms of spasmodic colic are: Uneasiness, stamping, pawing, drawing himself down, rolling, getting up, etc. The attacks are spasmodic, and during the intervals patient is normal, may appear to want to urinate.

Drench with 1 1/2 oz. each of laudanum, sweet spirits of nitre and tincture of belladonna in a pint of water. Repeat in 2 hours if necessary.

The general indifference to horse-breeding at present in some farm sections offers all the more encouragement to those who follow the less popular course and raise horses before they are actually at a premium on the markets.

Brood mares must be properly exercised, preferably with light work but not over-fatigued. Danger of straining shafts. Watch the mare carefully at foaling. A clean, thoroughly disinfected bright cheerful box stall is the best place to foal a mare, unless the weather is warm and a clean comfortable grass paddock is available. Yearlings and foals well fed and free from vermin will make the greatest and most profitable gains on summer pasture, but if the pasture is short, a grain supplement is a most profitable investment. The secret of successful horse raising is to keep the animals clean, healthy and constantly gaining in size and weight until maturity.

An automobile with five persons takes more gasoline than when one person is riding, but the increase is very small.

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, 75 Castle Frank Road, Toronto.

M. E. S.—A child four or five years old should drink at least a glassful of water between five o'clock supper and seven o'clock bedtime. Children should get the habit of drinking water both morning and evening. This will prevent a good deal of sluggish action of the liver, kidneys and bowels, and will obviate the need of laxatives, which are used altogether too freely.

F. H.—1. It is misconception to believe a kitchen should be large. It should be small, compact, cheerfully and sanitariously finished, with cross ventilation, and an abundance of illumination. It should not, of course, be so small as to be cramped or congested. A long, narrow pantry should be studiously avoided. Built-in cupboards in the kitchen might take the place of a pantry and save steps. 2. Any worker desiring to eliminate waste motion and increase her efficiency 50 per cent, can ask herself these questions: 1. Is my table, stool, board, or working surface at the right height? 2. Are my utensils and materials needed for this task all before me when I begin? 3. Do I have to stoop unnecessarily? Do I take useless steps? 4. Are my utensils arranged with proper regard to each other, and to other tasks? 5. Is my position comfortable? 6. Am I using the best and right tool for the purpose? 7. Is the tool properly adjusted and in good condition before I begin work? 8. Am I making any awkward motions, or ones I could omit?

L. N. T.—Here is an extract from a book entitled "The Efficient Life," which may suit your case. It is a plan that is decidedly worth trying. A tired and nervous mother will often find fault unnecessarily, and cause friction in the home. Give mind and body a real rest every day, as this message advises:—"Many mothers slave for their children so many hours a day that they have but little energy left with

which to enjoy them and love them. As a result, the dullness and drudgery of existence are all they come to experience.

"One mother of five children for years took at least one hour a day for rest and quiet reading alone by herself. Nothing but absolute necessity could induce her to break into this hour.

"The result of this is not only that she had kept her own superb health, but she is a constant joy and inspiration to her children, her husband, and her friends.

"It is true that she might have done more dusting or mending stockings than she has actually accomplished, but it would have been at the sacrifice of that whole part of her life which meant the most to herself and others."

W. E. K.—Probably you will find all the good recitations you need in "Jessie Alexander's Platform Sketches." The price of the book is \$1.00. As for drills, there are three little volumes you would find useful: "Ideal Drills," "Wilson's Drills and Marches," and "Twenty-five Drills and Several Motion Songs." They are 25 cents each.

R. W.—How April Fool Day came to be no one really knows. Probably the best guess is that which credits the day to France, the first nation of all Christendom to begin the year on January 1 instead of March 25. Before the change was made the octave of the festival, April 1, was the day on which the celebration culminated, when visits were made and gifts exchanged. With the adoption of the reformed calendar in 1564, New Year's Day was celebrated on January 1, and only pretended gifts and mock ceremonial visits were made on April 1, with the idea of making fools of those who had forgotten the change of date. The custom once started was kept up after its origin was no longer remembered.

The Dairy

For specific information regarding breeding, feeding, and general care and management of livestock, apply to your nearest experimental farm. Feed is high, but it is not so high that one can afford to ruin a good pasture by turning stock on it too early. Labor on the dairy farms this year is going to be hard to get, and undoubtedly will cost all it is worth. It

is a condition that will start many dairy farmers thinking about mechanical milkers.

A few years ago it was considered a normal thing for cows to give 2,500 to 3,000 pounds of milk in a year. Today yields of twenty to twenty-five thousand pounds pass almost unthought. Animal husbandry has become one of the most important and progressive vocations.

Oats should be treated for smut before planting.

"WHAT IS 'SERVING GOD'?"

What Does God Require of Thee But to Do Justly, and to Love Mercy, And to Walk Humbly With Thy God?

The greatest things in life escape definition, and religion is no exception. Accuracy does not always mean actuality. Statistics may only serve as a mathematical freezer. It is noteworthy that Jesus associated himself with the classic avowals of the past, while He colored them with the rich blood of His own experience. No great heights can be attained or depths fathomed that fail to do justice to the heritage of the past. Yet the essential value of Christianity lies in its power of expansion to changing conditions and present needs.

grown the conception of an immoral god, or even of a god who seeks reward in service, and, through the teachings of Jesus, have come to know One who is Himself the great Servant, whose service is coincident with all our human efforts.

We are nearly all ready to concede that the roots of our moral life are found in the natural endowments of sympathy, sociability and in the more recently acquired sense of justice. The very appeal of religion is conditioned by the common thrill and response which enables us to project ourselves into the feelings of others. No gift is fixed between love human and divine.

"To serve God." What is it? Time was when religion and morality had no dealings with each other. How could they? The gods themselves were not moral. Zeus was an adulterer. Bacchus was glorified drunk-ener. The Roman went to the priest for religion, but to the philosopher for morality. The service of God was in contrast to the service of men.

Need Fellowship With God. Sympathy without religion, however, is restricted to kith and kind. It flows freely only around most of our own habitation, and divides as well as protects. To fully translate the moral into the conditions of our community life we need the infinite expansion that comes through fellowship with God.

Even the streams of early Christian teaching became foul and muddy by the later deposits of zealous ecclesiastics. While religion and morality were made to be co-existent, "serving God" came to mean something over and above the great human obligations. Now an elaborate system of ritual, now a correct expression of belief, with the Almighty either as a "fussy court chamberlain" or as a theological examiner.

Sociability is another basic instinct through which our morality flows. Yet our modern life is largely one of impersonal relations. Evil is not clearly visualized. One may be a good husband and father and still be guilty of grave wrongdoing when that vague mass "the public" is concerned. Unless our range of interests is enlarged by the concept of a social God the gregarious tendency may breed only snobbery and patronage.

Religion and Morality. Even to-day this dualism is plainly observable. Religion is associated by many all too closely with churching, Bible reading, some special church activity or the acceptance of some creed. These means of grace are made to be works of additional merit in another sphere. Consider the divorce of religious education from schools. Here is a tacit confession that the service of God is something unnecessary for education in morals.

Again, a sense of justice, a result of the friction of minds, is that to which religion appeals. "Judge ye of your own selves that which is right." We ask for a "square deal," which, some one has said, means often three sides for ourselves, or else only the conventional rules of the game. The frown and smile of society are no assurance of the will of a just God and a Saviour. To make justice effective we need the reinforcement of the gospel. "What does God require of thee but to do justly, and to love mercy, and to walk humbly with thy God?"—Rev. W. P. Lemon.