

The Farmer's Advocate AND HOME MAGAZINE.

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DOMINION.

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Give the Seed A Chance.

Prof. I. P. Roberts, former head of the New York College of Agriculture, an intensely practical scientist, used to say to the farm men and student workers when they had finished as they thought, preparing a field for sowing, "Better do it all right over again, boys." That little lesson of duplicating the tillage was not lost either on the farmers-in-training or the crop harvested a few months later. Just at this season nothing is more important in farm practice than for us to consider what plants of the field or garden need for a good start and a maximum growth. Without wholesome air about it the plant above ground will not thrive much more than a crop of boys and girls. And before that stage of growth the seeds below the soil require air, and especially what is called oxygen. For instance, a heavy clay soil, saturated with water, becomes so firmly packed or bedded together that the air cannot circulate, and the little germ either rots or struggles almost hopelessly to get up to where it can breathe. If the soil is to be loosened or mellowed the water must be removed by drainage and something of a humus nature added. In setting out garden plants people sometimes pour a great deal of water on the ground immediately about them, and the result is a hard crust that excludes the air and also unduly hastens the evaporation of moisture subsequently needed below to provide through the rootlets what the plant must have to grow its stalk, branches and leaves. If the soil is lumpy and hard the drill will throw the seed in lanches and at uneven depths so that it will sprout in clumps, some grains later than others, and some not at all. This was why Dr. Roberts was so insistent upon a fine, mellow seed bed in order that all the kernels sown would germinate and grow evenly and well. Along with the air, plants require light of course, and most crops,

unless those under the shade of trees or buildings, get enough for normal growth. In order to germinate and grow, the seed demands warmth, though not necessarily a very high temperature, and the mellowing of the seed-bed will naturally tend to promote a sufficient degree of heat for a healthy start. The plant builds up its tissue by means of food which is conveyed in particles of water through the soil where it has been stored through the natural decay of vegetable matter, or by manures or artificial fertilizers added. Water is the great conveyor, and if it is to move freely towards the rootlets to feed the plant sufficiently after it begins growing well, it can do so more readily if the soil is free and mellow, rather than when dead, damp, cold and lumpy. A chemical analysis of the soil would probably not help us at all. There is no such thing as a patent medicine that will cure all the ills of the soil or of any particular crop. Given a fairly fertile bed of earth, whether heavy or light, the all important thing is its physical condition, and this happens to be the very thing we can control by drainage and proper tillage. For the field and garden production campaign of 1915 by this time the best available supplies of seed, let us hope, have been secured, but this is only half the battle. Right, early planting and right tillage under ordinarily favorable weather conditions will win the day. If we have never given the seed a fair chance before let us do so this year. Then if things go wrong we may blame nature but not before.

Getting Workers for the Farm.

The leading editorial in our issue of February 4—"Something Practical Towards Increased Production," suggested that a man be placed in each county during the spring months to bring farmers and city unemployed together and thus in a measure relieve the situation in the cities and furnish at least a part of the necessary labor with which the farmer could increase production. The plan was suggested to the Government and seemingly it has carried some weight, for, while appointments have not been made in each county, a special representative of immigration work, John Farrell, of Forest, Ont., has been sent out over Western Ontario to do what he can to bring laborer and farmer together. He is making stays of from a few days to a week in cities and large towns and the work is meeting with success. In London last week, over 250 men and boys seeking work on farms called at the office of the District Representative, I. B. Whale, B.S.A., where Mr. Farrell had his headquarters, and all were willing and anxious to get work in the country. A very large percentage of the applicants were married men who had previously had farm experience, many being born on the farm. "Not an undesirable in the lot" was the way Mr. Farrell sized them up. This seems like good news to the struggling farmer and the needy out-of-work. Large numbers were placed immediately and others will be sent out as fast as called for by farmers requiring help. The aim is to place the men in the district surrounding the centre from which they come. It is advertised ahead that such an opportunity is open and the response is certainly gratifying. If so much can be done in a few days, a month in each large place would have worked wonders. This is a practical movement worth more than all the talk the platform orators can muster. Keep up the good work.

Nature's Diary.

A. B. Klugh, M.A.

The Bears are now waking from their winter sleep, emerging from their dens, and wandering forth to dig for roots and to tear into rotten logs in search of dormant insects. One root, or more properly speaking corn, which is eaten by the Bear is that of the Indian Turnip, or Jack-in-the-Pulpit, which on account of its acrid and pungent character seems to be left alone by everything else. The Bear at this season also eats the bark of young trees and the sprouting blades of grass.

The Black Bear has an extremely wide range, being found in wooded country from coast to coast and from Mexico to Alaska. The Cinnamon Bear has often been considered a distinct species, but is really only a color phase, as a Black

mother may have one Black and one Cinnamon cub, or a Cinnamon mother may have Black young. A Cinnamon is rarely, if ever, seen in the East, but in the Rocky Mountains about a quarter are Cinnamons.

The Black Bear has no regular time for retiring to a den for the winter. If deep snow comes early they den early, but if the winter is open and there has been a good supply of beech-nuts and acorns the males may den only for a very short time. Even in open winters the females den in January, as the young are always born in the den. When winter comes on early the Bear makes a comfortable den and lines it with moss so as to make a soft bed, but in late winters it simply crawls into any available shelter. The den is however always in a dry place and where the snow will lie deeply.

The young are born towards the end of January, and are usually two in number, though sometimes but one and occasionally three. A new-born cub is extremely small, only about eight inches long and about ten ounces in weight, smaller and lighter than a new-born Porcupine. The young at birth are blind and covered with very fine black hair, and are kept covered by the body of the mother for about two months. In the spring the mother and cubs come out of the den, and the young soon begin to eat solid food. Young cubs are extremely playful, and box and wrestle like children.

The Black Bear is omnivorous, feeding upon whatever happens to be available at the time—Strawberries, Blackberries, Raspberries, Salmonberries, Blueberries, Winter-green berries, Wild Grapes, Mushrooms, the roots and tubers of various plants, grass, the bark of trees, Acorns, Beechnuts, Salmon, Suckers and Frogs, which it catches in shallow water, Mice, Snakes, Crickets, Mayflies, Grasshoppers, Beetles and their larvae, Ants, and honey all have a place in its menu. When very hungry it will eat any carcasses which it comes across, and has been known to kill stock and raid the pig-pen.

Bears have trails which lead to water and from one feeding ground to another, and generation after generation of Bears will follow these paths, which in country where Bears are numerous are well-worn. These trails differ from those of the Deer and other hoofed mammals in that they have less head-room, that they run along logs and not over them, and that a stream is usually crossed on a log. Along these trails are the Bears' sign-posts. These are trees which are much scarred by tooth and claw marks. When a Bear comes to one of these sign-posts, particularly in the mating season in June, it reaches up as far as it can and bites into the bark. At the same time its nose reads the records recently left there by other Bears which have passed that way, and it thus gets information as to the sex and size of these Bears, and by following their tracks can if it wishes overtake any particular individual. Bears are great roamers, but only over a comparatively limited territory, confining their perambulation to a radius of about ten miles. A mother Bear with young cubs, of course, ranges far less than this.

The Bear of popular imagination is a very different animal from the real Bear. It is really a very timid animal, and in the woods the difficulty is not to avoid a Bear but to see one at all. A hundred chances to one its delicate nose scents you long before you see it, and it makes off at a great pace. A Bear is only dangerous under three conditions—if it is wounded, if it is cornered, or if it is a mother with young cubs and you approach the cubs. But if it is forced to fight it possesses both strength and courage, and makes a very formidable antagonist.

The Black Bear is an excellent climber and runs up a tree almost as easily as a cat.

Compared with some of the conflicts in the fields of France the Charge of the Light Brigade begins to look like child's play. Lieut.-General Sir H. S. Rawlingson's Brigade in their final, severely-harrassed stand before Ypres stood up broken against odds of eight to one, the prime of first-line German troops. Of 400 officers who set out from England only 44 were left, and out of 12,000 men only 2,336! Is it any wonder with tragedy so terrible being enacted within a few hours' ride, that some of the great newspapers of England realizing the seriousness of the crisis, should score with the utmost severity the frivolous throngs at foot-ball matches and horse races, even urging their temporary suppression; and the Chancellor of the Exchequer boldly impeaching unabashed, wasteful and degrading traditions that are absorbing men who ought to be at the front!

Judging from occasional newspaper headlines lately there has been some apprehension that the war might end prematurely through the supplies of shot and shell running out.

Nature has a way of evening things up. If the sap season is long and good it is not so well usually with the winter wheat.