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**TORONTO CANADA** V2

## Our School Department.

### Agriculture.

BY GEO. W. HOFFERD, M. A.

Some one has said that "Agriculture is the oldest of arts and the most recent of the sciences." But we do not know how, when or where primitive agriculture began. The lowest races did not practice it, and even in the present time many tropical forest tribes have no idea of sowing and reaping. Their notions of getting food are limited to gathering such fruits and roots as they have found by experience to be edible. Some Australian tribes have learned the folly of destroying a permanent source of food, but the idea of attempting to increase it by efforts of their own has not yet dawned upon them.

Many hunting tribes, such as those of the Amazon forests, practice a simple form of agriculture, which gives the women a little to do while their husbands are away on hunting expeditions. But it is only an attempt at rude cultivation, for the climate is such that fruits of gorgeous beauty and attractive scent and taste offer themselves without cultivation. It is not then unlikely that agriculture, in most regions, began in this way. The crude little experiments turned out well from time to time, and consequently would be repeated; and agriculture of a primitive kind would gradually take its place among the occupations of a tribe.

Frequently, also, the attack of stronger neighboring tribes would reduce the area of the hunting grounds of the weaker, who occupied it, and game for them would become so scarce that the practice of agriculture naturally would grow more important. The husbands would give up their wandering life, to some extent, and gradually remain for long periods in settled villages as primitive tillers of the soil. In advanced social conditions men do all the hard work, leaving to the women that which requires time and the exercise of such virtues as patience, rather than strength.

Tropical lands offer highly favorable conditions for plant life, and there agriculture is most easily undertaken. Both heat and moisture are abundant, and vast quantities of decaying vegetable matter enrich the soil, making it exceedingly fertile. Crops ripen all the year round; and there is not one but many harvests during the year. There the method of agriculture is easy, but slow to improve, for where a little trouble is enough, man is not inclined to take more. Some African tribes abandon a clearing when the virgin soil shows signs of exhaustion. They move to a new area, which in turn they exhaust. More troublesome crops are only introduced when such simple methods fail. Among agricultural African tribes in tropical regions to-day are found many stages of progress in agriculture from the nomadic agriculture to the excellent cultivation by many negroes.

A great advance is made as soon as tribes begin to cultivate crops for seed, such as corn, rice, wheat and millet. These involve much labor, and develop the ingenuity and foresight of the tribes who

engage in their cultivation. They gradually discover better methods of working the soil, the use of fertilizers, improved implements and irrigation; and so agriculture passes from the stationary into the progressive stage.

Our school boys and girls know that agriculture has developed much faster in some parts of the world than in others. Even at the present time many tribes have got no further than sowing and reaping with the crudest implements, and stick only a handful of shoots into the ground to let mother Nature do the rest unassisted. The tribes a little more advanced have learned to select and preserve seed from the harvest for the next seeding time. Still more advanced peoples, such as are found chiefly in the clearings of the temperate forest regions of Europe, Asia, United States and Canada, however, understand manuring, cover crops, crop rotation, grafting, budding, pruning, irrigation, insecticides, fungicides, and similar methods of increasing the yield. Indeed, to-day, it is our aim to make agriculture a science as well as an art.

### The Sun.

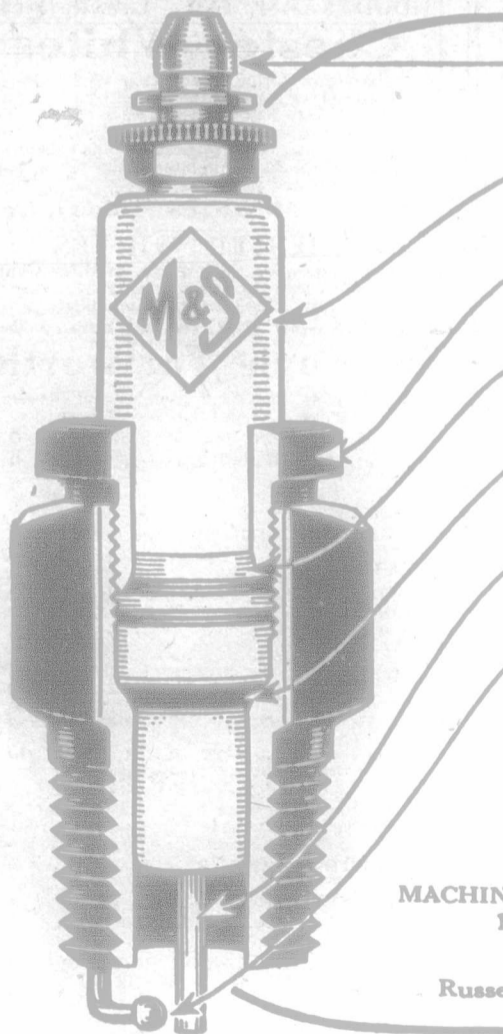
BY DR. D. W. HAMILTON.

The sun is a great, round ball of fire giving out a great deal of heat and light. The light is so bright, that although the sun is millions of miles away, it dazzles the eyes. During the day it looks yellow like fire, but sometimes in the evening, when it is setting, it looks red. The sun does not move. The earth whirls round like a top. When the side which we are on is nearest the sun, we get plenty of light and heat. We call that day-time. When the earth turns round so that we are on the side in the shade, we call it night. Because we are moving we think the sun is moving. The sun rises in the east and sets in the west. The sun gives us light and heat, without it no animals or plants could live.

"Kind words are little sunbeams,  
That sparkle as they fall;  
And loving smiles are sunbeams,  
A light of joy to all."

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	Lbs. per bushel
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Buckwheat.....	48
Flax.....	56
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Beans.....	60
Beets.....	60
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Potatoes.....	60
Turnips.....	60
Clover Seed.....	60
Timothy Seed.....	48
Blue Grass Seed.....	14



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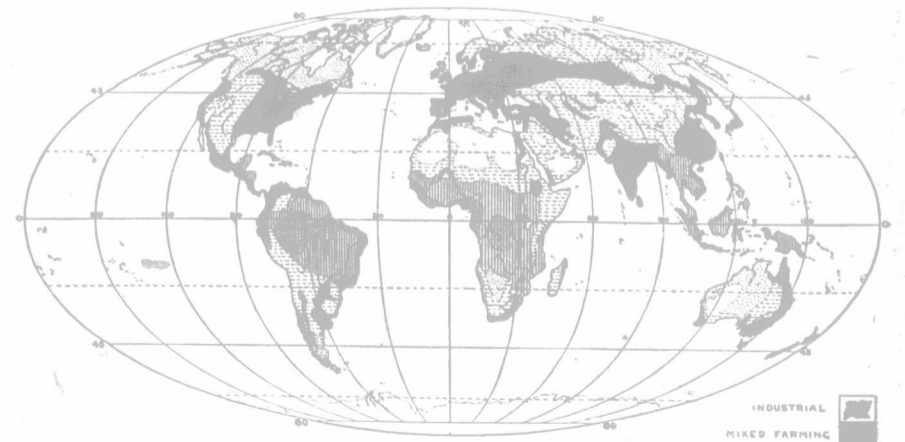
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