


MARCHING IN THE RIGHT DIRECTION.

STUDY OF AGRICULTURE IN OUR PUBLIC SCHOOLS.

 UR constant advocacy of the science of farming forming a part of the regular studies of our "coming men" is well known to all our readers, and it is with very great pleasure that we notice the progress that is being made by the Educational Department in this direction.

The teachers in the public schools are fast being made aware that the teaching of agriculture will soon take a foremost place in the curriculum of their class work. We append the syllabus of the course in agriculture in the Normal Schools of Ontario, and we are sure all will admit that it is sufficiently comprehensive:

(1) The Plant—Relations of mineral, vegetable and animal kingdoms to each other; constituents of plants, relative proportions of combustible and incombustible matter in plants and in different parts of the same plant; nature and sources of plant food; functions of roots; functions of leaves; germination; plant development. Proximate composition of some of the most important crops grown in Ontario.

(2) The Soil—Proximate composition and classification of soils; chemical constituents, physical properties, and comparative fertility of the principal varieties of soil; functions of each ingredient in a fertile soil; active and dormant constituents of soil, and the best means of converting the latter into the former; power of different soils to hold moisture, manure, etc.; causes of unproductiveness, influence of rest, frost, aspect, elevation, etc., on the productiveness of soil.

(3) Drainage and Tillage—Importance of having land properly drained; indications of the need of under-draining; injurious effects of stagnant water in soil; practical advantages which result from under-draining, objects and effects of tillage; need of thorough tillage; ploughing, harrowing, rolling and cultivating; deep and shallow ploughing; fall and spring ploughing; fallowing; benefits which result from stirring soil; nitrification, etc.

(4) Manures and Seeds—Production,

management and application of farm-yard manure; conditions which affect its quality; green-crop manuring; notes on the most valuable nitrogenous, phosphatic, potash and lime manures; importance of using clean and pure seed; effect of age on seed; necessity of change of seed; quantity of seed per acre; methods and depth of sowing, etc.

(5) Rotation of Crops—Crops which each kind of soil is best adapted to produce; succession or rotation of crops; principles underlying rotation; examination and criticism of different systems of rotation; smut, rust, etc.; midge, Hessian fly, wire-worm, etc.

(6) Live Stock—Points of beef cattle and dairy cows, with diagrams. Breeds of beef cattle, with diagrams and descriptions—Shorthorns, Herefords, Aberdeen-Angus, Galloways and Devons. Breeds of dairy cattle, with diagrams and descriptions—Ayrshires, Jerseys, Holsteins, Canadians and Shorthorn grades. Breeds of sheep, with diagrams and descriptions—Leicesters, Cotswolds, Lincoln, South Downs, Shropshire Downs, Oxford Downs, Hampshire Downs, Merinos. Importance of selection in breeding.

(7) Food and Feeding—Composition and properties of some of the most important foods and fodders grown in Ontario; nitrogenous and non-nitrogenous ingredients in food; proportions in which to combine these for different objects; importance of a mixture of foods; points to be observed in order to get the full value of food; shelter and warmth as means of economizing food; good and bad systems of feeding.

(8) Dairy Products—Most important points to be observed in the production and handling of milk; treatment of cream; churning; working, salting and packing of butter, etc.

(9) Forestry—Planting and care of trees for shade, shelter and ornament, varieties best suited for different purposes.

(10) The Beautifying of Country Homes—Site, laying out of house, lawn, ornamental trees, etc.; hints as to the best way of making comfortable and cheerful homes with as little labor and expense as possible.