

they become yet more fully adapted to special requirements of the human system. Man is therefore dependent upon plants as the great preparers of his food, both directly and indirectly.

With a more thorough knowledge of animal nutrition, we have come to recognize more generally than in the past, that the quality of the food supply effects a pronounced and most important influence upon both the physical and mental condition, and this influence must be exerted both directly and indirectly by the vegetation upon which man feeds. We are therefore brought to yet another principle, that any improvement in the character of the food supply, must operate advantageously for man, in a corresponding systematic improvement.

But the great biological laws are not adapted with sole reference to particular forms of life—they admit of general application, and, as we learn from vegetable physiology, the character of the plant is subject to the influence of variable nutrition, in a manner quite parallel to that which we observe in animals. In this, therefore, we discover the possibility of a means of making plants more perfectly adapted to the highest physical wants of man, and any study which tends to promote this end, cannot fail to be of the greatest interest, bringing us, as it inevitably must, into closer relationships with those forms of life upon which we are so largely dependent for health, comfort, and enjoyment.

The subject we have chosen for discussion this evening, is one of considerable magnitude—embracing considerations of the greatest practical and scientific interest—and could readily be dealt with from several points of view. Perhaps many would consider that a mere statement of the articles which constitute plant food, together with the fact that the earth and air are the great sources of supply, would fully exhaust the subject, but an enlarged view discloses the fact that the sources of food supply; the preparation of food for the use of the plant; the general process of waste and repair; the selective power of plants