

THE  
CANADIAN RECORD OF SCIENCE,

MONTREAL.

---

VOLUME I.                   ... ..                   NUMBER 4.

---

I. DISTRIBUTION OF THE RESERVE MATERIAL OF PLANTS  
IN RELATION TO DISEASE.

BY D. P. PENHALLOW.

By reserve material we understand all those proximate constituents of plants which are either directly or indirectly the product of assimilation, and which are stored up in solid or liquid form to meet some future requirements of growth.

It is essential for us to bear in mind that, such material being the result of an assimilative function which is dependent upon the presence of chlorophyll and the action of sunlight, it can be found, primarily, only in those parts of green plants which grow under the normal influence of light; and, secondarily, also in those parts of green plants which are normally excluded from the light, and to which it has been transferred from the organs where it is formed by secondary processes. It follows from this, that all such material must be absent from colorless parasites, except in so far as they may have taken up the digested material of their hosts and re-deposited it in their own tissues, and from all saprophytes. It will also follow that, whatever operates to influence the digestive process in green plants must have a direct bearing upon the amount of reserve material finally deposited, as well as the tissues in which it is stored.