



FIG. 4. PEA-POD ATTACKED BY THE DISEASE.

areas covering the greater portion of the culm. Only where the stems are subjected to very moist conditions does the staining of these lesions penetrate far into the tissue of the stems, the usual effect merely being a darkening of the cortex. The pods are often affected in the same manner, showing grey and brown spots, varying in size from small pin-points to patches covering the greater portion of the pod, or more often being small raised disks of $\frac{1}{16}$ in. to $\frac{1}{8}$ in. in diameter. Where the pods are more or less covered with these spots the husk is stained internally, and the seed may have a similar brown stain. The presence of lesions on the leaves, culms, and pods, and the staining of the seed, do not have any serious effect, if any, on the host, but the condition under which they occur and the relationship to the disease of the spring growth will be more fully discussed in a later article.

ECONOMIC IMPORTANCE OF THE DISEASE.

The New Zealand agricultural statistics (2) include the data regarding peas and beans under the one heading, but, assuming that the proportion of beans sown in the years previous to 1915 has not altered greatly in recent years, then the acreage of peas can be estimated by reducing the following totals by 17 per cent.: 1915-16, 9,359 acres; 1916-17, 11,905 acres; 1917-18, 11,685 acres; 1918-19, 17,929 acres; 1919-20, 14,416 acres; 1920-21, 14,466 acres; 1921-22, 12,789 acres; 1922-23, 24,449 acres; 1923-24, 18,676 acres.

Although a reduction of 17 per cent. of the foregoing acreages may be approximately correct in the case of the pea crops for threshing, it is doubtful if a similar reduction of the total values will give a true estimate of the value of the pea crop. Following is the estimated combined value of peas and beans for the past ten years: 1915-16, £49,978; 1916-17, £82,113; 1917-18, £125,033; 1918-19, £151,785; 1919-20, £166,188; 1920-21, £142,158; 1921-22, £135,759; 1922-23, £261,580; 1923-24, £136,045.

These values and acreages do not include the crops grown for the vegetable trade, of which the Wellington City market alone consumes about £5,000 each year.

Literature (2) (3) dealing with similar diseases in America and Europe does not give reliable estimates of the proportion of loss apart from stating that they are considered a serious trouble in connection with the canning industry. It is difficult to estimate the amount of damage caused by collar-rot in New Zealand, but when it is considered that all garden-pea varieties are more or less susceptible to