

## ANALYSIS-PACKAGE Blgg laboratories

### Diagnoster®

Plants can be infected by thousands of different diseases and insects. Every type of plant is sensitive to some 100 different species. It is important to find out if any symptoms on your crop are related to a disease or if it is related to nutrition (see Analysis-Package Leaf and Fruit analysis). Plant diagnosis is to find out the primary cause of the disease, and what kind of measures to take.

#### Classification

Plant diseases can be categorized in relation to the symptoms that are found on the plant, such as root rot, stem- and shoot rot, vascular wilt, leaf- or fruit rot. Plant pathogens are classified as contagious (A) or non-contagious species (B):

A. Contagious diseases	B. Non contagious are diseases caused by
<ul style="list-style-type: none"> <li>• Bacteria</li> <li>• Fungi</li> <li>• Nematodes</li> <li>• Protozoa</li> <li>• Parasites</li> <li>• Virusses</li> </ul>	<ul style="list-style-type: none"> <li>• too high or low temperature</li> <li>• too much or too little water</li> <li>• too much or to little light</li> <li>• lack of oxygen</li> <li>• deficiency or excess of nutrients</li> <li>• too high or low pH</li> <li>• wrong use of pesticides</li> </ul>



If the grower recognizes the symptoms it is possible to prepare an effective programme of pest control. This can be preventative (before damage is done) or curative (to limit the damage). It is important to understand the life cycle of the pathogen so to avoid infestation by taking the necessary cultural practises.

#### The diagnosis

The diagnosis of the disease is done by the plant pathologists of Blgg. These experts work together with other laboratories as well as highly respected Dutch Institutes such as NAKT and PD. The techniques that are used can vary from visual checks, Elisa, microscopy, plate culture and PCR. Every pathogen has a specific approach. This also determines the timing. Some tests, e.g. plate cultures might take too long to take any pest-control measures. In this case consulting Blgg for a first impression is effective. Digital pictures of symptoms of the crop can be very helpful in these cases.

