



Back to the feeling
to be proud of your crop!



Definition of the Terms. Describing the Reaction of Plants to Pests or Pathogens for the Vegetable Seed Industry as adopted by the International Seed Federation (May 2005)

1. PREAMBLE

Differing degrees of specificity exist in the relations between plants and pests or pathogens. Identification of such specificity generally requires the use of highly elaborate analytical methods. Recognizing whether a plant is subject to a pest or pathogen or not may depend on the analytical method employed. It is important, in general, to stress that the specificity of pests or pathogens may vary over time and space, depends on environmental factors, and that new pest biotypes or new pathogen races capable of overcoming resistance may emerge.

2. DEFINITIONS

Immunity: Not subject to attack or infection by a specified pest or pathogen.
Resistance: The ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure.
Two levels of resistance are defined:
High/standard resistance (HR): plant varieties that highly restrict the growth and development of the specified pest or pathogen under normal pest or pathogen pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest or pathogen pressure.
Moderate/intermediate resistance (IR): plant varieties that restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms or damage compared to high/standard resistant varieties. Moderately/intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.
Susceptibility is the inability of a plant variety to restrict the growth and development of a specified pest or pathogen.

As to resistance codes Rijk Zwaan would like to add the following:
If in a resistance code of a certain variety reference is made to certain pest biotypes or pathogen races for which the resistance is claimed this means that no resistance is claimed to other biotypes or races of the same pest or pathogen.
If in a resistance code no reference is made to pest biotypes or pathogen races for which the resistance is claimed this means that resistance is claimed only to certain not further specified pest biotypes or pathogen races.

Descriptions, illustrations, growing advice and any other information, for example on sowing, sowing, planting and harvesting dates, of Rijk Zwaan in whatever form are based as precisely as possible on experiences in trials and in practice. However, Rijk Zwaan does not accept in any case liability on the basis of such descriptions, illustrations, growing advice and information for deviating results in the grown products. The buyer itself is responsible for proper storage of the seeds and will be deemed to determine whether the products and growing advice are suitable to be used for the intended cultivations and under the local conditions.



SEEDS & SERVICES



What is blueleaf ?

blueleaf is a trait with which we want to distinguish some of our (new) Rijk Zwaan cucumber varieties. blueleaf is not a form of resistance, but absolutely a trait that helps growers in keeping their crops healthier. Varieties with the blueleaf trait look healthier due to the dark green character of the crop and it will make the cultivation time longer.

What makes blueleaf so different?

The usual resistances in a cucumber crop we are all familiar with protect the plant against pests and diseases to which they have intermediate or high resistance.

When a variety shows itself to have clearly more resistance in practice but this resistance cannot be named in a resistance, we talk of so-called 'field resistance'. And blueleaf is definitely a clear example of this.



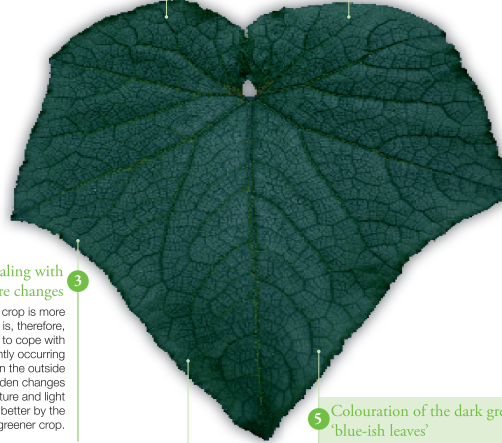
Advantages of blueleaf

1 More chlorophyll in the foliage

blueleaf varieties have greener leaves throughout the cultivation period. This means that the crop has, on average, more chlorophyll in the leaves than other varieties. Chlorophyll is vital for the assimilation process. Blueleaf varieties can, therefore, make better use of the available amount of light, good for the assimilation process in the plant.

2 Efficiency in the absorption of nutrient elements

The transport and processing of the required nutrient elements is more efficient and distributed better over all the plant parts. Good distribution of the elements results in a better production and better product quality.



3 Dealing with temperature changes

A greener crop is more active and is, therefore, better able to cope with the frequently occurring changes in the outside climate. Sudden changes in temperature and light are dealt with better by the greener crop.

4 Vegetative / generative balance

Better balance between growth and fruit set. This delays yellowing of the crop for as long as possible. The crop remains active for longer and continues to produce cucumbers of good quality.

5 Colouration of the dark green 'blue-ish leaves'

This is the most visible aspect of a blueleaf variety, which also makes it visibly different from other varieties. Even when there is an emphatic outbreak of the yellowing virus (CYSDV) the crop remains green for longer. As for other attackers such as, for instance, fusarium and downy mildew, we know that they strike less quickly in a green crop that is growing well. The "hard green" crop is also less attractive for enemies like white fly and trips. And last but certainly not least ... working in a crop with a healthy green colour is much more enjoyable!

Identification

That could not be easier. In all our communications such as brochures, leaflets and crop guides, blueleaf varieties have the blueleaf icon printed behind them.



A blueleaf variety for each season

As you can see in this brochure, the Rijk Zwaan R&D team cucumber has already provided varieties for each season and you can be sure that more varieties with the blueleaf trait will be introduced in the future.

Blueleaf varieties can help you in achieving top results, and not just where CYDSV is a regional problem. That is why we advise you to keep in contact with the technical service of Rijk Zwaan. We will also keep you updated with the latest blueleaf developments via www.rijkszwaan.com.

blueleaf recommended areas

