

PRESS RELEASE



of the International Bremia Evaluation Board Europe (IBEB-EU)

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A new race of *Bremia lactucae*, BI: 36EU identified and denominated in Europe.

The International Bremia Evaluation Board Europe (IBEB-EU) has collected more than 300 Bremia isolates in European lettuce in 2018 and compared them with the 500 Isolates found in 2017. Most isolates in 2018 belonged to local races. However, one race already spotted in 2016 and 2017 appeared to spread over large distances and was isolated in various centres of lettuce production. The IBEB-EU decided to denominate this isolate as new race BI: 36EU. The Board emphasizes the importance of chemical control and hygiene measures in addition to the use of resistant varieties to prevent the development of new races.

Bremia lactucae, the causal agent of downy mildew in lettuce, is genetically very variable. Even within one lettuce production field, several races may be present.

The IBEB-EU met in November 2018 in Paris to evaluate a total of 800 *Bremia lactucae* isolates found in Europe in 2017 and 2018. In 2018 the most widely spread races were the 3 recently denominated races BI: 33EU, BI: 34EU and BI: 35EU. These 3 races were isolated in 27 % of the samples. More than 50 % of the isolates encountered in 2017 and 2018, were new races. Most of these new races were isolated only once or a few times in the same region, indicating epidemic outbreaks with probably only local significance. However, one isolate already found in previous years appeared to spread as a pandemic over an increasing area. This race represented 16 % of the isolates.

A formal evaluation process started in November 2018. In April 2019 the IBEB-EU concluded that the selected candidate isolate gave consistent test results.

This isolate is denominated as the new race BI: 36EU (EU-C sextetcode: 55-15-01; DE1620).

BI: 36EU is widely spread in Europe and is found a.o. in France, Germany, the Netherlands, Italy, Austria, Switzerland and Scandinavia. This race may be described as a more virulent variant of BI: 34EU, able to break one additional resistance source.

Occasionally, isolates with only regional significance are causing serious problems. This type of isolate diversity complicates the official denomination of all important *Bremia* isolates. The trend towards more local epidemics may be related to the successful introduction of an increasingly wide range of resistance genes by breeding companies. Therefore, the board emphasizes that, although breeding companies will supply growers with lettuce varieties possessing resistance to the nominated BI: 16-36EU races, this is not a full insurance against *Bremia*.

The board also emphasizes the importance of chemical control and hygiene measures in addition to plant resistance. Fungicide application, especially in a young plant stage, gives

additional protection to resistant lettuce crops, which will help prevent the development of new Bremia races. Proper hygiene practices, such as removal of debris and diseased plants, cleaning of farm equipment and prevention of prolonged periods of leaf wetness, will reduce the spread of Bremia in lettuce crops.

Information on the differential set and sextet codes is available through the ISF website: <http://www.worldseed.org/our-work/plant-health/other-initiatives/ibeb/>

IBEB-EU consists of representatives of the Dutch and French seed business associations Plantum NL and UFS, and the independent organisations GEVES/SNES and Naktuinbouw. IBEB is supported by several Bremia researchers across Europe. Lettuce breeders of Bejo, Enza Zaden, GAUTIER Semences, BASF Vegetable Seeds, Rijk Zwaan, Bayer, Syngenta and Vilmorin represent the business associations.

All denominated isolates and seeds of the differential set are available at GEVES/SNES (France) and at Naktuinbouw (The Netherlands).

Editorial note:

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