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## **MAPPING THE SPREAD OF SUGAR BEET CYST NEMATODES IN NORTHERN ITALY**

**Recensement de la propagation de nématodes à kystes chez la betterave  
sucrière en Italie du nord / Erfassung der Ausbreitung von  
Rübenzystennematoden in Norditalien**

### **ABSTRACT**

The sugar beet cyst nematodes, *Heterodera schachtii* and *Heterodera betae*, are pests of the crop widespread in Northern Italy. The damage they cause to the crop was high-impact before the advent of nematode tolerant varieties. This genetic material, while ensuring good levels of production on soils with infestations minor to 400 eggs / larvae per 100 grams of soil, also undergoes a reduction in productivity in the presence of the parasite. The nematodes tolerant varieties are widely distributed in the sugar beet districts of Northern Italy (about 51% of sales in the 2012 campaign and up to 80% in some districts). The last map of nematodes distribution in northern sugar beet areas was made in 2004, after this date the reform of the sugar market has significantly changed the geography of sugar beet. In addition, other parameters may have influenced the spread of the parasite as a broadening of crop rotation, the use of varieties with less nematode multiplication factor of those not tolerant employed before 2004. An update of the spread of the nematode will be made using data from sampling conducted by the sugar companies and Beta. Such map can be used by sugar companies, associations and individual producers to better target the variety choice. For a more in-depth knowledge of the farm soil it is still need the sampling and the specific analysis of the soil counting the eggs/ larvae.

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