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**CHEMICAL AND BIOLOGICAL METHODS FOR THE CONTROL OF
LEATHERJACKETS (TIPULIDAE) IN SUGAR BEET**

**Méthodes chimiques et biologiques pour contrôler les tipules (Tipulidae) en
betteraves sucrières / Chemische und biologische Methoden zur Kontrolle
von Schnakenlarven (Tipuliden) in Zuckerrüben**

ABSTRACT

Leatherjackets are the larvae of the crane fly (Tipulidae). In 2011, due to damage caused by these leatherjackets, 89 hectares had to be redrilled in the Netherlands and 50 hectares in Belgium. The most prevalent species in 2011 was *Nephrotoma appendiculata* (= *N. maculata*). More often the species found to cause damage in Belgium and the Netherlands are *Tipula paludosa* and *Tipula oleracea*.

In Belgium and the Netherlands, the only insecticides that are authorised in sugar beet to treat against attacks of leatherjackets are seed treatments. However, these seed treatments do not give full control of the leatherjackets when there is a high infestation level in a field. Hence, no pest control methods are currently available that give satisfactory control of leatherjackets in sugar beet in Belgium and the Netherlands.

In order to investigate new pest control methods, field trials were conducted with chemical and biological methods to control leatherjackets in 2012 and 2013 in Belgium and the Netherlands. Oxamyl was the best treatment for the control of leatherjackets in absence of wireworms. If also wireworms were present, tefluthrin applied as granulate in the seed furrow, was the best treatment.
