

Scientists refute Greenpeace claim that genetically modified corn caused new insect pest

January 6 2012

An article in the forthcoming issue of the *Journal of Integrated Pest Management* (JIPM) refutes claims by Greenpeace Germany that the western bean cutworm (WBC), *Striacosta albicosta* (Smith), is "a new plant pest" that was "caused by genetically engineered corn." The Greenpeace Germany report, which was written by author Richard Then of Testbiotech, offers a "surprisingly simplistic conclusion" regarding the spread of western bean cutworm over the last decade, according to the JIPM authors.

In "Genetically Engineered Bt [Corn](#) and Range Expansion of the Western Bean Cutworm (*Lepidoptera: Noctuidae*) in the United States: A Response to Greenpeace Germany," corresponding author William Hutchison, professor and chair of the University of Minnesota Department of Entomology, and his co-authors maintain that the Greenpeace report fails to consider broader ecological and agronomic factors which explain why the WBC's range has expanded. These additional factors include [insect biology](#), synchrony of insect and corn phenology, reduced insecticide use, increases in conservation tillage, [soil type](#), glyphosate-resistant crops, insect genetics, insect pathogens, pre-existing [insect population](#) densities, and climate change.

The JIPM authors focus on several discrepancies of fact and interpretation in the Greenpeace document, beginning with its title, "Agro-biotechnology: New plant pest caused by [genetically engineered](#)

corn. The spread of the western bean cutworm causes massive damage in the U.S."

Despite the Greenpeace claim, the WBC is neither "new" nor has it caused "massive damage" recently. The WBC was originally collected in Arizona in the 1880s and was considered an economic pest of beans and corn as early as 1915. Over the last decade its range has expanded, but documentation of economically damaging infestations has been relatively limited.

The Greenpeace claim that the WBC has historically "been confined to very limited regions and did not cause any major problems in maize crops" is also untrue, according to the authors. Farmers in Nebraska reported major problems as early as 1962, and instead of being "confined to very limited regions," the WBC was documented throughout the western Great Plains from Mexico to Alberta, where it was found in the mid 1950s, despite the Greenpeace claim that it was found in Canada for the first time as recently as 2009.

According to the authors, "a curious theme throughout the Greenpeace Germany report, is that Then (2010) ignored the possibility of other influences on western bean cutworm range expansion, including several ecological and agronomic factors." For example, the increasing use of conservation tillage since the mid-1990s favors the survival rate of WBC larvae because less deep plowing minimizes mortality to insect pests that overwinter in the soil. Another possible reason is the reduction or elimination of insecticide applications, which has occurred with increased use of Bt corn over the past decade, likely resulting in increased survival of the WBC. Other possibilities for the WBC range expansion, such as climate change, were also ignored by Greenpeace and Testbiotech.

Out of concern that "potential misinterpretation of selected quotes" in

the Greenpeace report may lead to confusion among future regulatory decision makers, the authors go on to give specific responses to other claims in the report.

More information: These responses, and the full JIPM article, can be downloaded at www.entsoc.org/PDF/2012/JIPM-Greenpeace.pdf .

Provided by Entomological Society of America

Citation: Scientists refute Greenpeace claim that genetically modified corn caused new insect pest (2012, January 6) retrieved 24 April 2024 from <https://phys.org/news/2012-01-scientists-refute-greenpeace-genetically-corn.html>

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