



Gaucho – safe to bees in canola

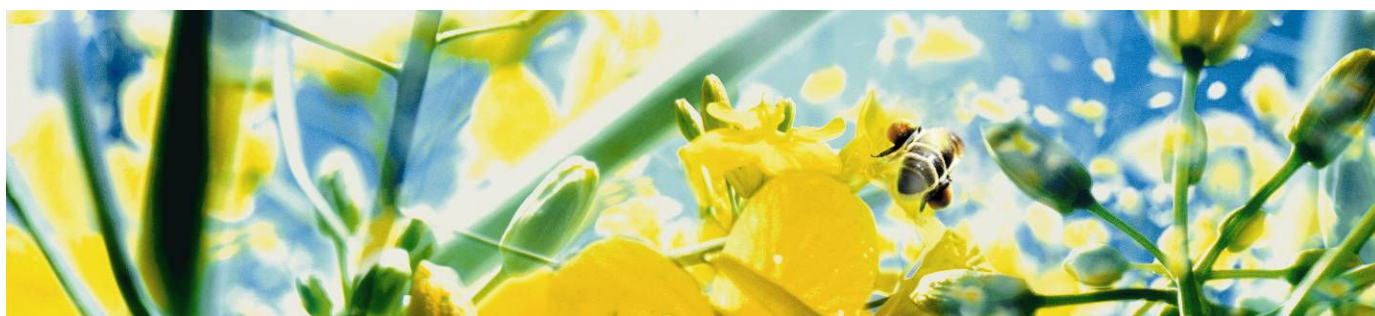
Gaucho Seed Dressing Insecticide from Bayer CropScience is an important tool in the successful establishment of many broadacre crops and pastures, including canola. The active ingredient of **Gaucho**, imidacloprid, the world's number one selling insecticide, is currently registered in 120 countries for use in 140 crops.

Due to imidacloprid's intrinsic toxicity to bees when applied as a foliar spray, and its highly systemic nature when used as a seed treatment, the question has arisen whether treatment of canola seed with imidacloprid (e.g. **Gaucho**) will have any adverse impact on bees attracted to the crop during flowering.

This issue has been intensively investigated in the key canola growing regions of Europe and North America. Two distinct approaches have been taken with these investigations, which have been conducted both by Bayer CropScience, and various independent research bodies including universities, government agencies and two German Bee Institutes.

In ten studies throughout Europe, USA and Canada, flowers of canola crops grown from imidacloprid treated seed were analysed for imidacloprid residues. In samples of nectar and pollen, imidacloprid residue levels were always very low, and well under the known threshold levels for adverse effects on bees. In an additional study, a survey found no detectable residues of imidacloprid in honey samples from thirteen different locations around Germany.

The second approach was the field and tunnel or tent studies conducted in canola, which investigated any direct adverse impact on bees. In these studies, crops grown from imidacloprid treated seed, often at substantially higher than recommended rates were monitored extensively over the flowering period. Aspects of bee health such as mortality, population development, flight and foraging behaviour, and nectar and pollen sampling activity were examined. In some studies, honey yield and brood weight were also monitored at the hive. Eleven of these intensive studies have been undertaken in Germany, Sweden, France, UK, Canada and USA with no adverse effects recorded.



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In addition, several long-term studies have monitored bee population and brood development, where bees have been fed imidacloprid-containing diets.

This extensive body of work clearly demonstrates the safety of imidacloprid to bees when it is used as a canola seed treatment.

With concern over bee health an issue in Europe and North America, the spotlight has certainly been on agricultural chemicals like imidacloprid, prompting much of the research described above. However given the new registrations and re-registrations of imidacloprid canola seed treatment in countries including Sweden, Canada, Finland, Austria, Great Britain, and Germany over the past four years, it is clear that there is a high degree of international confidence in the safety to bees of imidacloprid treated canola seed.

Bayer CropScience is confident, based on an extensive body of international research, and the acceptance of imidacloprid as a bee safe seed treatment by independent researchers and regulatory authorities, that the use of Gaucho as a canola seed treatment will not harm bees in any way.



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The information and recommendations set out in this document are based on tests and data believed to be reliable at the time of publication. Results may vary, as the use and application of the products is beyond our control and may be subject to climatic, geographical or biological variables, and/or developed resistance. Any product referred to in this document must be used strictly as directed, and in accordance with all instructions appearing on the label for that product and in other applicable reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.
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