

Weeds grow resistance to glyphosate

A research group at the University of Cordoba has discovered the reason why a type of weed, which causes serious problems to olive and citrus crops, is growing resistant to one of the most commonly used herbicides: glyphosate.

The team of researchers, led by the professor of Agricultural Chemistry and Soil Science Rafael de Prado, has managed to discover that this resistance is due to the fact that, when applied on this type of weed, glyphosate is absorbed and there is little translocation with respect to the susceptible biotype.

Since the 1990's, there has been continued use of glyphosate, widely used in olive and citrus fields across Spain.

This situation has led to the herbicide causing selection pressure on two relevant types of weeds: *Lolium rigidum* and *Conyza* spp.

As a result of such pressure, the first of these weeds has been able to survive glyphosate treatment at doses that should eliminate it.

According to an article published recently in the journal *Frontiers in Plant Science*, this team of scientists has verified, through the use of Carbon 14 and a system called Phosphorus Imager, how glyphosate barely penetrates and moves inside the plant, concluding that the non-translocation of the herbicide is actually a defence mechanism of the plant itself.

De Prado explains that in order to reach these results, they conducted surveys, mainly in olive groves in the province of Jaen and citrus fields in Cordoba, Seville and Huelva.

Imitating the contrast CTs made daily in hospitals, the UCO researchers applied the field dose of glyphosate mixed with Carbon 14 to the *Lolium rigidum* samples, and after 96 hours, a radiographic image of the plant was taken, revealing that glyphosate had not translocated through certain parts of the weed.

This research proves that the resistance of these weeds to glyphosate is not associated with human actions or climatological phenomena, but rather that it is intrinsic to the plant and responds to the Darwinian approach to species adaptation.

Lien article : <http://www.freshplaza.com/article/176397/Weeds-grow-resistance-to-glyphosate>