

Glyphosate-tolerant sugarbeet: Case study of lower CO2 emissions, higher yields with GM crops

Western Sugar Cooperative is a co-op of beet producers who mainly farm in Montana, Wyoming, Colorado and Nebraska.

[Chief scientist Rebecca] Larson said the co-op has been getting ahead of misinformation about sugarbeets with research, including how growing Roundup Ready (RR) [glyphosate-tolerant] sugarbeets is important in terms of sustainability.

In one example regarding tons of carbon dioxide produced per ton of sugar, using RR beets, compared to conventional beets, significantly reduced the overall carbon emissions, scientists found.

“As we sit now, three tons of CO2 equivalents are emitted per acre of beet production, and that is about twofold less than it was 12 years ago,” she said.

There is also less ecotoxicity because fewer pesticides are applied overall with RR beets, and they are applied at lower rates.

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Producers also save water when they plant RR beets.

“GMO sugarbeets require less than 50 percent of the water on average to produce than conventional beets,” Larson said. “The main reason for that is that weed control is better, so if you have weeds that are there, they are also going to be using water and other nutrients you have applied in the field.”

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