## How large-scale farms using pesticides can be more sustainable than organic farming

Editor's Note: In her new book "Rancher, Farmer, Fisherman: Conservation Heroes of the American Heartland," . . . Miriam Horn [tells]. . . the story of Justin Knopf, a farmer in central Kansas, to show that industrial-scale farming — even the pesticides that come with it — can be sustainable.

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Plowing strips soil bare, exposing it to erosion . . . It collapses soil structure — closing off the water channels left by deep roots and worms — and harms life in the soil.

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So Justin gave up tilling . . . For 20 years, mimicking the surrounding prairie, they've left their soils undisturbed and littered with a protective mat of stalks, husks and leaves. . . .

Justin uses ... cover crops and rotations as his first line of defense against pests. . . But he still needs to "burn down" those cover crops to enable planting and to beat back tenacious weeds. For both, he turns to Roundup, an infamous synthetic herbicide.

Most organic farmers make the opposite choice: avoiding chemical herbicides by tilling. But most soil microbiologists believe that causes *greater* ecological harm.... If herbicide, used judiciously ... allows you to leave the soil intact, it is a net environmental positive.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: Column: When industrial-scale farming is the sustainable path