GMO, non-GMO or organic? Comprehensive look at ecological costs and benefits of crop production

Labels on food are everywhere — organic, free range, no antibiotics, non-GMO, made with Genetic Engineering, etc. What do these mean and how do they relate to conservation on farm lands?

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GMOS: Genetically Modified Organisms or GMOs are a fairly recent method for creating seeds that have very specific traits. With the advent of GMO crops, farmers have used far fewer pesticides including insecticides...Farmers use 20 to 24 ounces of product per acre. The rest is water and a few ounces of what farmers call "stickers' or crop oil that makes the product stick to plants to make pesticides do their job better.

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NON-GMOs: All seeds before GMO development were non-GMO and many crops are still raised without that technology. This usually means more toxic herbicides and insecticides are used as needed, which is the biggest difference in using non-GMO seeds. It's also a little harder, though not impossible, for farmers to use no till practices. There are more fuel and water used because of the extra spraying and perhaps more fuel for extra tillage.

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ORGANIC: Organic food by USDA definition doesn't use synthetic pesticides or fertilizers except when they are approved by Organic Material Review Institute (OMRI)...With the exception of hay and rye, organic crops on an average yield 1/3 less than other farming methods. This is due to disease, weed and other pest pressure.

Read full, original article: Hype vs. Reality: An honest look at crop production methods