



Western Sugar Cooperative
(Grower Owned)



Sugar beet sustainability

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Western Sugar Cooperative

- American farmer-owned from seed planting to sugar sale
- Multigenerational, small family farms
- Proud of our 100 year+ commitment to the land & community



Time for a paradigm shift

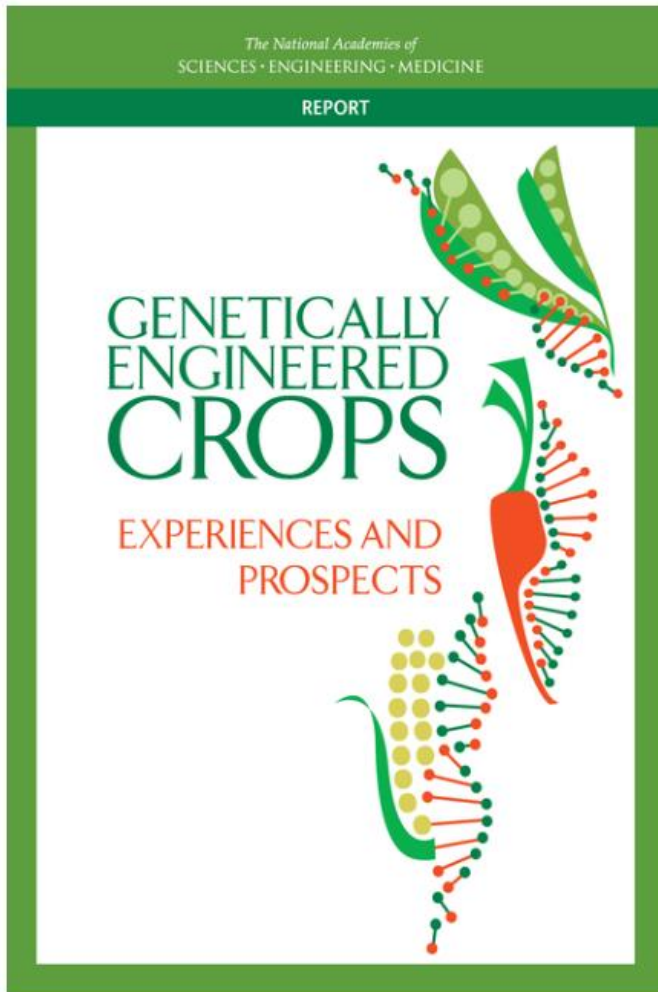


We live in a “free” society impacting farming



- Consumers care more about what's *NOT* in their food
- *HUGE* misconceptions about technology
- Ideology versus science & ideology is winning
- Labels construe meaning; drive sales through misperception
- Same consumers avoiding certain products are concerned about the environment
- Glyphosate used on both beets and cane

GMOs are safe & key to sustainability



The study:

- 26 accredited scientists
- 2 years of investigation
- 900 published studies, 80 presentations & 700 public comments representing both sides of the debate

The findings (glyphosate tolerance):

- Increased yield
- Herbicide quantity & toxicity reduced
- No agronomic impact from weed population shifts
- Management practices exist to minimize resistance development

Technology protects our farms & families

- Farming is challenging: socially, economically & environmentally
- Industry reported on 25 different environmental benefits to the National Academies of Science
- GMO sugar beets require fewer & safer inputs (10-fold less toxic)



Sustainability: a partnership between growers & manufacturers



- Sustainability is important to the consumer
- Often times sourcing non-GMO products is counter to sustainability
- Carefully tracking, documenting and analyzing on-farm data = our story
- By quantifying what we do we create transparency and a means for YOU to share a compelling story with the consumer.

Building our story, protecting our legacy

Commitments



- All growers contractually commit annually to not use Persistent Organic Pollutants (POPs), organophosphates, soil fumigants, Atrazine or Paraquat
- Most aggressive Integrated Pest Management (IPM) strategy of all beet sugar Cooperatives
- Growers encouraged to engage in conservation easement opportunities



- Rely on our trusted, best in class internal team of agriculturalists to continually expand program participation & Best Management Practice (BMP) adoption



Building our story, protecting our legacy

Calculations for Creating Transparency



- Partnered with industry-leading tech providers to create largely seamless data collection platform
- Easy to access cloud storage
- Collaborating with domestic & international leaders in sustainability data analytics & benchmarking
- Utilizing internal multi-disciplinary team, develop Best Management Practices (BMPs) & continuous improvement program
- Partnering with 3rd parties when necessary to deliver innovations supporting sustainability goals



Building our story, protecting our legacy

Validation



- Members of Field to Market sustainability tracking program
- Robust verification of data analytics



Step change *plus* continual improvement



Cut diesel consumption enough across cooperative to fuel up 5,500 semis annually



Reduced water consumption enough to fill over 15,000 Olympic-sized swimming pools annually



Cut carbon dioxide emissions equivalent to removing over 10,000 cars from the road annually



Improved biodiversity by increasing yield 30% and reducing herbicide toxicity nearly 10-fold



Committed to sustainability & quality



- Adopting new technology & actively engaging in sustainability tracking allows us to deliver a top quality product with reduced impact on the environment
- Our sugar has not changed: GMO- and Pesticide-free and 100% natural
- We believe sugar derived from US produced sugar beets is the most sustainable source globally.