

# GMOs & ANIMAL FEED

Animal agriculture converts crops into high quality proteins like those in meat, milk and eggs. Farmers choose to feed their livestock and poultry with feeds made from GMO crops because they can be more beneficial to the environment.



## SAME NUTRITION & SAFETY

whether animals are fed GMO feed or non-GMO feed



### FOOD

The resulting food products, like milk, meat, and eggs, are the same<sup>1</sup>



### HEALTH

Health, growth and performance of animals are the same<sup>2</sup>



### NUTRITION

Composition and digestibility of the feed is the same<sup>3</sup>

## SAFE GMO CROPS

**The National Academies of Sciences, Engineering and Medicine** reviewed >900 studies & publications based on >20 years of data and concludes that GMO crops were safe for:



### HUMANS



### FARM ANIMALS



### BENEFICIAL INSECTS & POLLINATORS



### ENVIRONMENT

*"No substantiated evidence of a difference in risks to human health between current commercially available genetically engineered [GMO] crops and conventionally bred crops".<sup>4</sup>*

## MORE SUSTAINABLE FOOD

Farmers can grow more with less impact on the environment



### ↓ LESS LAND NEEDED

In 2018, without GMOs, **59.7 million more acres would have been needed to be planted** to grow the same amount of food.<sup>5</sup>



### ↓ FEWER GREENHOUSE GASES

In 2018, GMOs **helped reduce total CO2 emissions by 50.7 billion pounds**. That's like removing 15.3M cars from the road for 1 year.<sup>5</sup>



### ↓ REDUCED ENVIRONMENTAL IMPACT

Since 1996, GMO crops have **resulted in the use of less pesticides and their environmental impact was reduced by 19%**.<sup>5</sup>

<sup>1</sup> Van Eenennaam, A. L. and A.E. Young. 2017. Detection of dietary DNA, protein and glyphosate in meat, milk and eggs. Journal of Animal Science. 95(7):3247-3269. <https://www.animalsciencepublications.org/publications/jas/articles/95/7/3247>

<sup>2</sup> Van Eenennaam, A. L. and A. Young. 2014. Prevalence and impacts of genetically engineered feedstuffs on livestock populations. Journal of Animal Science. 92:4255-4278. <https://www.animalsciencepublications.org/publications/jas/articles/92/10/4255>

<sup>3</sup> Flachowsky, G. and T. Reuter. 2013. Animal Frontiers. Future challenges feeding transgenic plants. 7(2): 15-23. <https://animalsciencepublications.org/publications/af/articles/7/2/15>

<sup>4</sup> National Academy of Sciences. 2016. Genetically Engineered Crops: Experiences and Prospects. <http://na-sites.org/ge-crops/>

<sup>5</sup> Brookes, G. and Barfoot P. (2020). GM crops global socio-economic and environmental impacts 1996-2018. Retrieved from