

What is HarvXtra® Alfalfa?

HarvXtra® Alfalfa is the industry’s first genetically enhanced alfalfa technology developed to maximize quality compared to conventional alfalfa at the same stage of maturity, by reducing the amount of lignin in the plant.

What are the benefits of HarvXtra® Alfalfa?

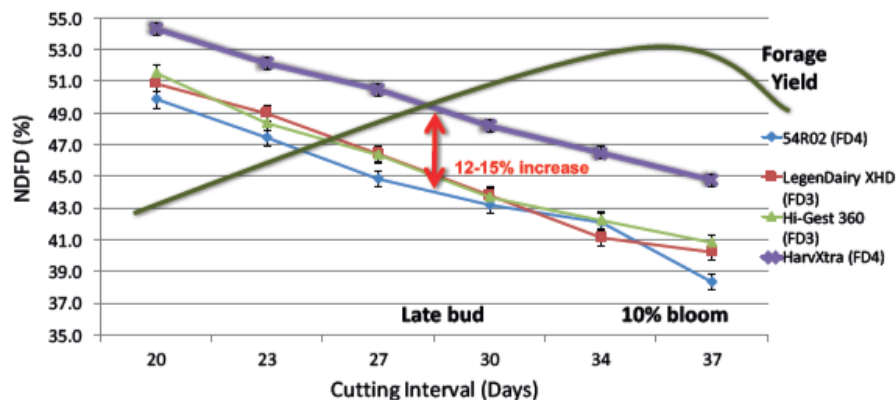
HarvXtra® Alfalfa gives growers the ability to better manage the yield-versus-quality tradeoff. It offers more flexibility in cutting schedule to achieve improved forage quality or greater yield potential when compared to conventional alfalfa at the same stage of maturity.

What will HarvXtra® Alfalfa do for growers?

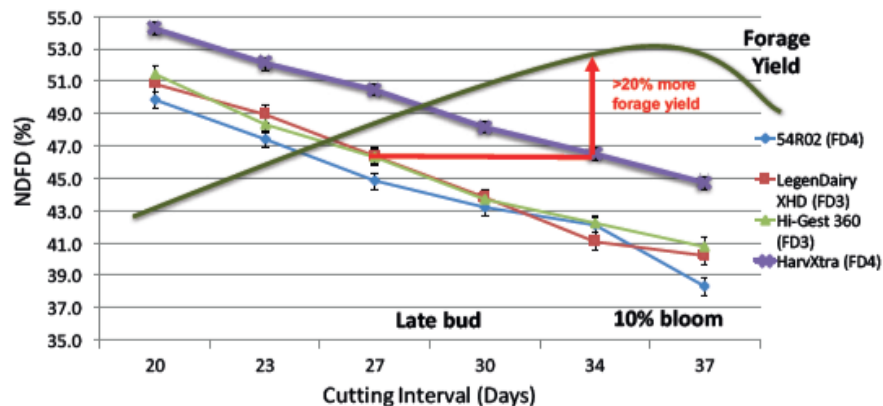
The HarvXtra® Alfalfa provides unprecedented flexibility by widening cutting windows, which gives growers the option to:

- Maintain their normal harvest schedules for higher-quality forage, or
- Delay harvest for 7-10 days for increased yield potential, without sacrificing forage quality, compared to conventional alfalfa at the same stage of maturity.
 - The ability to delay harvest gives growers the option to decrease the number of cuttings over a growing season, which can reduce harvest costs and potentially improve the life of the alfalfa stand.

Harvest for Quality NDFD - 4 Locations (WA, ID, IA, & WI)/2 yrs



Delay Harvest for Yield NDFD - 4 Locations (WA, ID, IA, & WI)/2 yrs



What is the difference between HarvXtra® Alfalfa and conventional alfalfa developed for improved quality?

Genetically enhanced HarvXtra® Alfalfa fundamentally changes the relationship between forage quality and stage of maturity by modifying lignin content beyond what is possible with conventional alfalfa breeding techniques.

- HarvXtra® Alfalfa has on average 12-15% less lignin and 12-15% higher neutral detergent fiber digestibility (NDFd) and relative forage quality (RFQ) than conventional alfalfa harvested at the same stage of maturity.
- Since there is little genetic variation in lignin content in conventional alfalfa, breeding for increased digestibility is limited, and selection for improved quality often results in a decrease in forage yield potential, which is not seen in HarvXtra® Alfalfa.

Who developed the technology?

HarvXtra® Alfalfa is the latest breakthrough in alfalfa technology from Forage Genetics International (FGI). It was developed through a strategic partnership formed between FGI, The Samuel Roberts Noble Foundation, the U.S. Dairy Forage Research Center and Pioneer, in conjunction with Monsanto.

Where will HarvXtra® Alfalfa with Roundup Ready® Technology be sold?

HarvXtra® Alfalfa with Roundup Ready® Technology is now available across the U.S.

Is lodging a concern with HarvXtra® Alfalfa?

Lodging potential for HarvXtra® Alfalfa is equal to most commercial varieties harvested at the same time. Delaying harvest will increase the risk of lodging for all alfalfa varieties.

Will there be a yield drag with HarvXtra® Alfalfa?

No, yield will be comparable to products currently available.

Is HarvXtra® Alfalfa drydown the same as conventional alfalfa?

Yes, drydown of HarvXtra® Alfalfa is comparable to products currently available.

Roundup Ready® is registered trademarks of Monsanto Technology LLC. Export and planting restrictions apply, see www.tug.monsanto.com for more information.