

# MAXFIBER

IMPROVING FEED EFFICIENCY



MAXFIBER is a fungal biomass produced by solid-state fermentation of plant substrates with fungi to increase nutrient digestibility and animal performance. The MAXFIBER product portfolio offers dedicated fermentation products for different diet types for dairy and beef: MAXFIBER for fiber-rich diets and MAXFIBER/HSD for high-starch diets.

## OPTIMIZE RUMEN DEGRADATION

A selected combination of different fungal strains determines the field of application of our MAXFIBER products. MAXFIBER products promote the degradation of crude fiber and structural carbohydrates (MAXFIBER) or non-fiber carbohydrates (starch, pectin) (MAXFIBER/HSD) increasing the total tract digestibility and improving energy utilization. In addition, MAXFIBER has prebiotic effects and promotes microbial colonization stimulating ruminal fermentation, thereby stabilizing the rumen environment. The effect of MAXFIBER leads to an improved feed conversion ratio, higher daily milk yield, and lower loss of milk persistence.



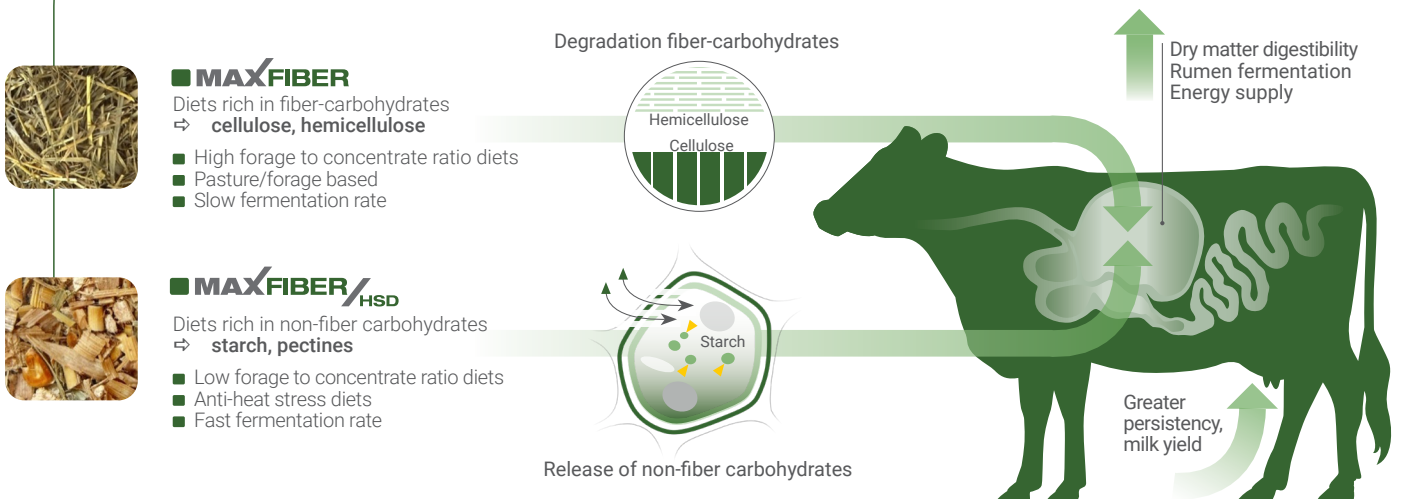
## CHARACTERISTICS

- Fiber digestion
- Greater feed efficiency
- Improved dry matter digestion

## APPLICATION BENEFITS

- Flexibility in diet formulation
- Greater Performance
- Environmental friendly

### F1: Mode of action of MAXFIBER portfolio.

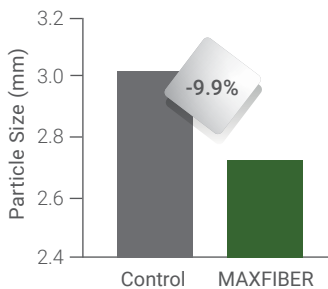


## GREATER FIBER BREAK DOWN

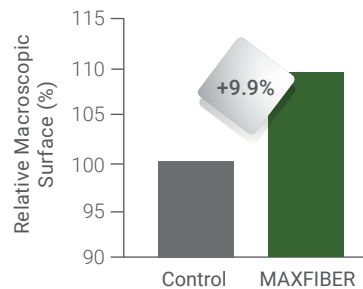
**Model:** *in vitro* fermentation assay using rumen fluid  
**Treatments:** Control; MAXFIBER; corn silage as substrate  
**Methods:** Weighted average particle size (fraction 0.063 to 4.0 mm)



F2: Reduction in particle size.



F3: Increase in macroscopic surface.



Source: ISF, 2015.

The weighted average particle size was numerically lower for MAXFIBER than Control, however, the relative macroscopic surface was numerically greater for MAXFIBER compared to Control. **A greater physical surface leads to a greater cation exchange capacity and related buffering capacity in the rumen. MAXFIBER increases nutrient degradation improving rumen fermentation processes and feed efficiency.**

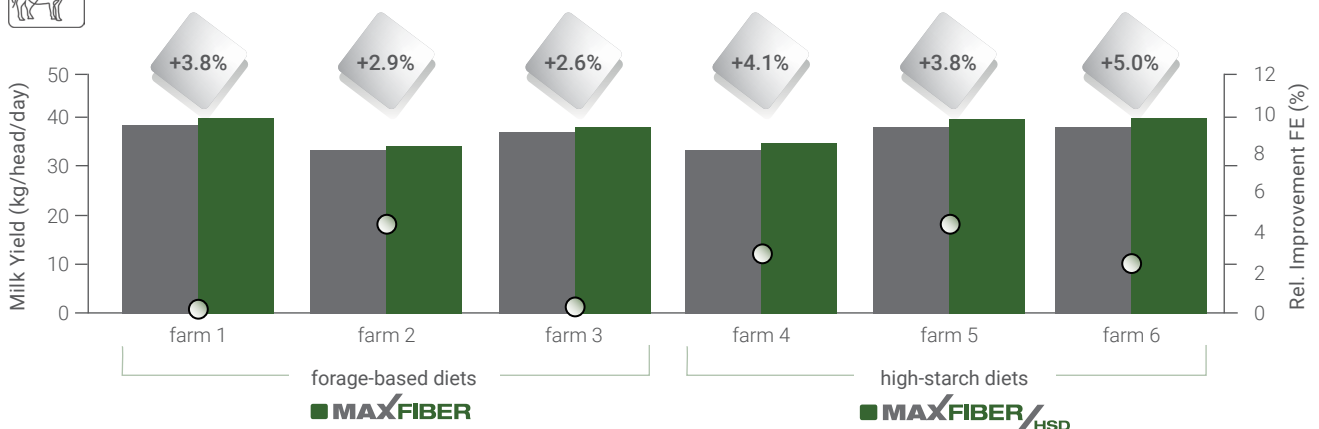
## IMPROVED FEED EFFICIENCY AND MILK YIELD

**Animals:** Dairy cows (6 farms); Ø 140 cows/farm, Ø 37.0 kg milk, 150 d in milk  
**Treatments:** (1) Control; N=840; (2) MAXFIBER or MAXFIBER/HSD

In on-farm trials, milk yield on all 6 farms was numerically greater for MAXFIBER and MAXFIBER/HSD compared to Control. The feed efficiency (FE) was numerically the same (farm 1) or greater (farm 2-6) for MAXFIBER and MAXFIBER/HSD compared to Control. **MAXFIBER and MAXFIBER/HSD improve feed efficiency and performance in dairy cows.**



F4: Milk yield and feed efficiency in dairy cows.



Source: ISF, 2016. ■ Control ■ MAXFIBER ○ MAXFIBER (Feed efficiency improvement)