



HP FiberBoost, *the ideal functional fiber with prebiotic properties*

- Next generation fibers stimulate gut health and modulate the microbiota



The next generation fibers of HP FiberBoost are functional ingredients that stimulate early gut development through synergistic pathways between gut and microbiota. HP FiberBoost contains enzymatically processed soy hulls and is rich in both insoluble fibers and prebiotic carbohydrates.

The benefits of fibers

The potential benefits of fiber depend on the physicochemical characteristics of the fiber source. Dietary fiber consists of various fractions which roughly can be divided in insoluble- and soluble fibers. The insoluble fibers contain insoluble non- starch polysaccharides (I-NSP) and lignin which are almost not degraded in pigs. The use of insoluble fiber in pig diets contributes to the secretion of digestive enzymes, stimulates peristaltic activity, reduces the adhesion of pathogenic bacteria to the gut wall and improves, due to the water holding capacity, fecal consistency.

The soluble fiber fraction reaches the hindgut intact and serves as nutrient source for the microbiota that inhabit this part of the digestive tract. The prebiotics in HP FiberBoost provide a substrate for beneficial microbiota. They are capable of producing fiber digesting enzymes which results in the secretion of short chain fatty acids (SCFA like butyric acid). The SCFAs provide a favorable environment for beneficial bacteria which improves gut health and reduces the risk of enteric diseases. Additionally, SCFA's are a slow release but constant nutrient source for the pig and have an healing effect on the gut epithelial.

HP FiberBoost improves butyric acid production in the gut.

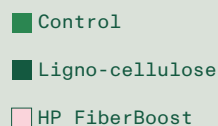
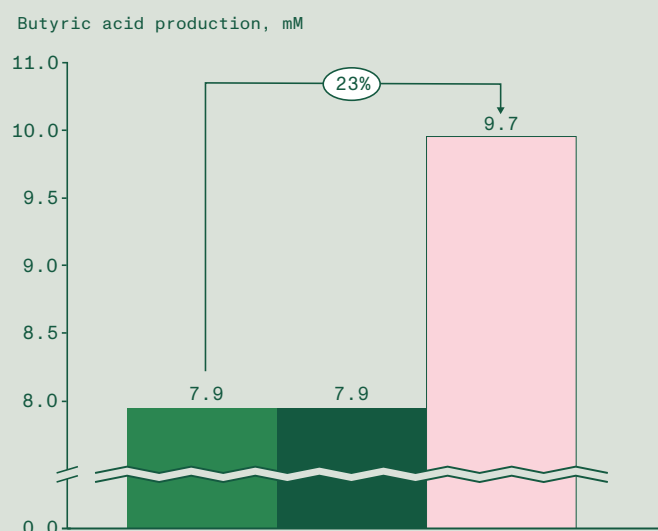
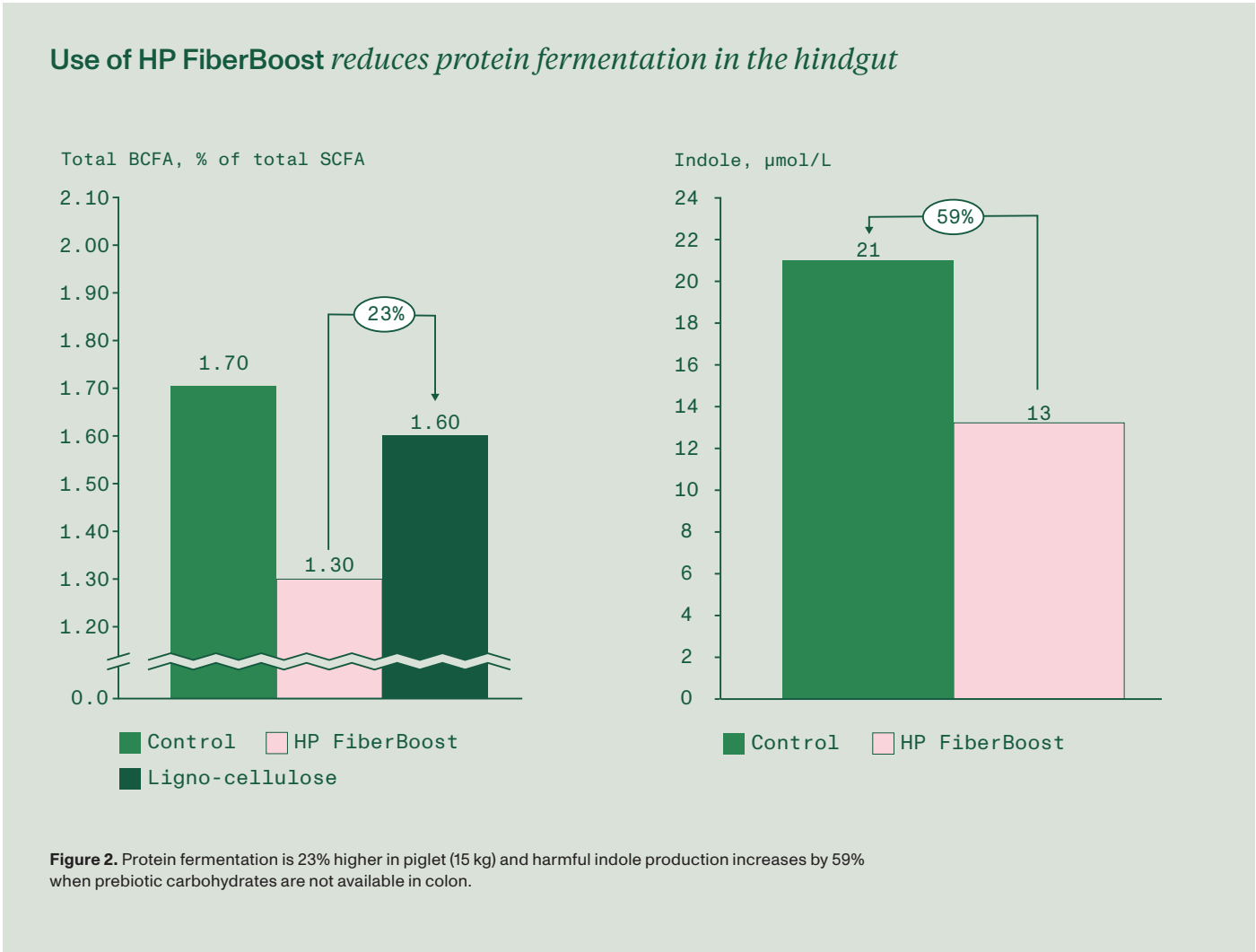


Figure 1. Butyric acid production increases by 23% in piglets (15 kg) when prebiotics are fed. Control were not fed supplemental fiber.



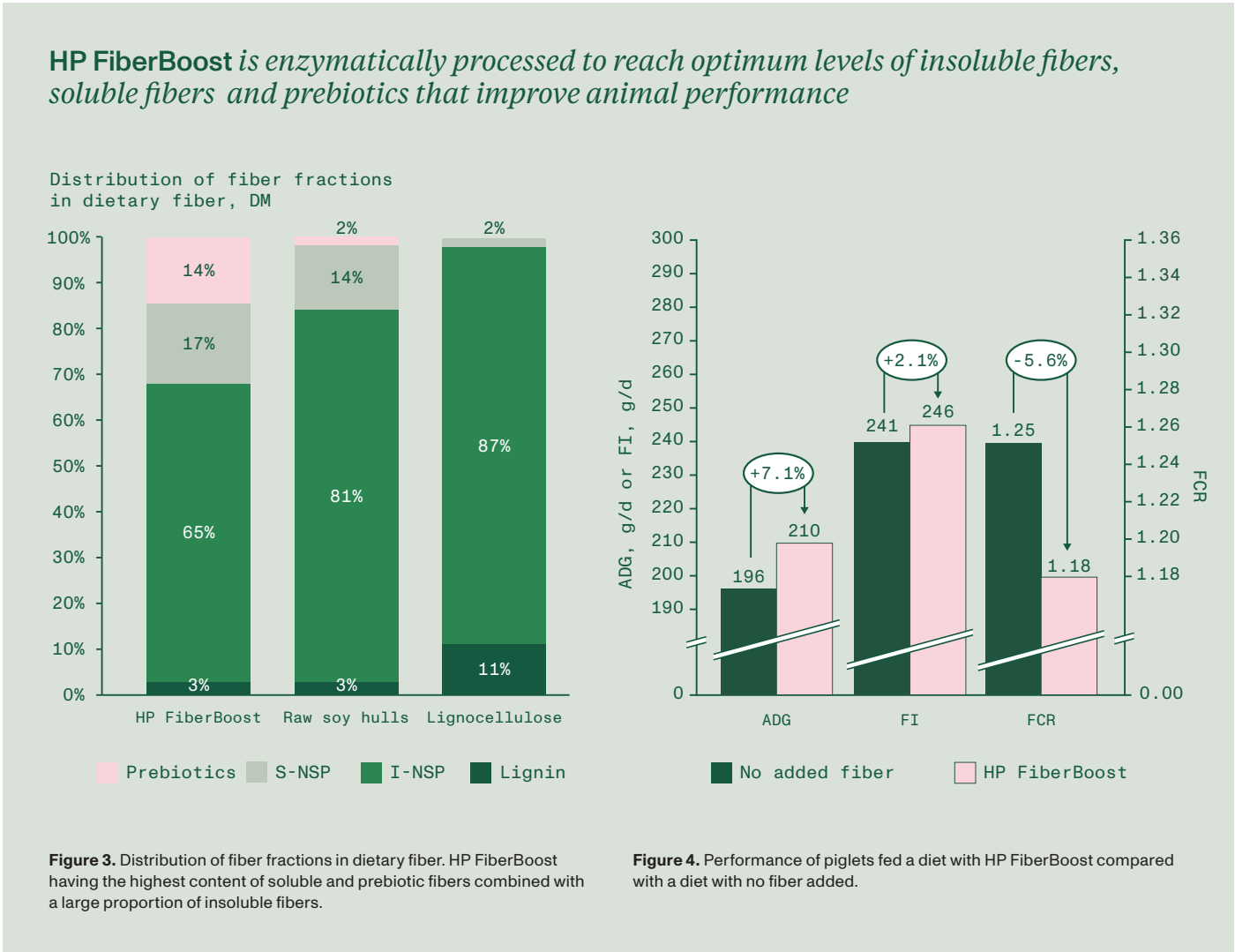
HP FiberBoost reduces protein fermentation

The preferential growth of beneficial bacteria uses not only prebiotics as substrate but also feed on any undigested protein that reaches the hindgut leaving less available for putrefactive bacteria that ferment protein in the hindgut. Fermentation of protein in the hindgut is not desirable as, of course, it increases feed cost but also can result in toxic end products like indole and ammonia that can seriously impair gut health and functioning. The presence of branched chain fatty acids (BCFA's) indicates on-going protein fermentation which is reduced by the use of HP FiberBoost.



HP FiberBoost: enzymatically processed soy hulls

The next generation fibers of HP FiberBoost are produced from soy hulls but are enzymatically processed to reduce ANF's and alter the fiber content. The enzymes hydrolyze specific linkages in the fiber structures and as a result of this process, the prebiotic carbohydrates and certain nutrients that were encapsulated within the fiber matrix become more available for the hindgut microbiota.



Product description

A pure fiber product based upon enzymatically processed soy hulls formulated specifically for dietetic use in pigs.

Benefits

- ✓ Increased feed intake
- ✓ Firm feces
- ✓ Improved gut health and development
- ✓ Ease the transition to next feeding phase
- ✓ Improved growth performance
- ✓ Enable the use of diets with high nutrient and energy density

Product features

- ✓ Prebiotic carbohydrates
- ✓ Low viscosity
- ✓ Structural fibers that stimulate peristaltic movements
- ✓ Standardized composition
- ✓ Also available as non-GM
- ✓ Enzymatic-chemical analysis:
 - Total-NSP 57%
 - I-NSP 45%
 - S-NSP 12%
 - Prebiotic CHO 10%

Health promoting recommendations

Around 4% crude fiber in final feed is recommended to get full health benefits of fiber.
Minimum of 0.2 - 0.4% prebiotic carbohydrates recommended in weaner diets.

Fiber talk

The S-NSP fraction is also sometimes referred to as soluble fibers.
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HP FiberBoost

Recommended use, *inclusion level*

