Feed enzymes

ORBA Biochemistry was founded in 1977 with the purpose of promoting enzyme use in Turkish food, feed, textile and leather industries through development of special enzyme blends and technical application support.
Today, Orba Biokimya has its modern production facility near Istanbul, supplying enzymes to various industries with thirty years of productıon, procurement and application experience. ORBA enzymes are produced according to HACCP procedures and comply with FAO/ WHO JECFA,FCC recommended specifications with ISO, GMP, FAMİ-Qs certifications.

Producing economical feed requires usage of various vegetal raw materials.
Polysaccharides (NSP) that make up the plant cell walls such as arabinoxylans, xyloglucan in wheat, beta-glucans in barley can not be digested by poultry and jellify resulting in runny faeces and increased water consumption. These poly-saccharides can be broken down into digestible carbohydrates by b**-glucanase**, **xylanase** and **cellulase** which prevent jellification, improve digestibility and provide extra energy.
Grains such as corn, wheat and barley, pulps from seeds like soy and sun flower contain protein, oil and starch which are captured in cell walls. **Pectinase**, **protease**, **xylanase** and b**-glucanase** break these down and turn raw proteins into amino acids.

75% of phosphorus in vegetal raw materials is bound as phytic acid and phytate. Poultry can only utilize 33% of this phosphorus. **Phytase** break down phytic acid and phytate complexes and release phytate-bound phosphate and improve calcium, trace elements, protein and carbohydrate utilization. Increased intake of phosphorus leads to less environmental impact of poultry faeces
YEMZİM® feed enzymes are active under conditions of pH and temperature found in the gastrointestinal tract of poultry as well thermostable by pelleting.
Following tables can help to choose the best **YEMZIM®** according to raw materials used and benefits expected.

YEMZİM®'s are available in powder (feed) or liquid (drinking water) forms

YEMZIM®	Enzymes	Ration
YEMZIM® A	β-glucanase, cellulase	Barley, oats
YEMZIM® B	Xylanase, cellulase	Wheat, rye
YEMZIM® FZ	Phytase	Phytate bound phosphorus in cereals: corn, wheat, barley and soy beans
YEMZIM® P	Protease, xylanase, β-glucanase	Cereals:corn, wheat, barley and oil seed cakes: soybeans, sunflower
YEMZIM® MIX	Phytase, Xylanase, β-glucanase, protease, cellulase, hemicellulase	Cereals:corn, wheat, barley and oil seed cakes:soybeans, sunflower; esp. for layers
YEMZIM® MULTI	Xylanase, β-glucanase, cellulase, hemi-cellulase, pectinase, protease, α-amylase	Cereals: corn, wheat, barley; oil seed cakes: soybeans, sunflower; for broilers & layers

YEMZİM®	Improvement	Gain
YEMZIM® A	Barley-Oat protein utilization Barley and Oat ME	8-10 % 6-8 %
YEMZIM® B	Wheat-Rye protein utilization Wheat and Rye ME	7-10 % 5-7 %
YEMZIM® MIX	Bound phosphorus utilization Raw protein utilization Ration AME	20-30 % 2-4 % 2-7 %
YEMZIM® FZ	Bound phosphorus utilization Raw protein utilization Ration AME	20-30 % 2-4 % 2-3 %
YEMZIM® P	Raw protein utilization Ration AME	2-3 % 2-5 %
YEMZIM® MULTI	Raw protein utilization Ration AME	2-5 % 2-7 %

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