novus solutions

Cibenza™ DP100

Minimizing the Impact of Protein Costs in Animal Feeds

Feed is the major input cost when it comes to poultry production. It accounts for up to 70 percent of the total production cost.

Over the last few years, due to raw material scarcity, producers have learned to balance costs without compromising performance by using a variety of raw material sources available locally. The use of enzymes, (phytases, xylanases, cocktail NSP enzymes, etc.) has also become common in animal feeds.

With soybean meal prices at a high level, the cost of including proteins/amino acids in feed ingredients remains high. Dietary proteins are not completely utilized by the animal. There is potential to improve amino acid utilization by supplementing animal diets with a proteolytic enzymes that have appropriate properties such as activity, stability, and are cost effective for feed applications.

CIBENZA™ DP-100, the Protein Solution

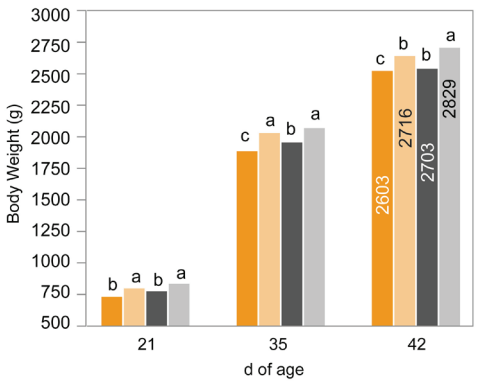
CIBENZA DP-100 is an aggressive, heat-stable, broad spectrum protease that complements the animal's endogenous enzymes to hydrolyze less digestible proteins in animal feeds. As a result, it improves the protein digestibility in feeds over the typical industry average of 80 to 90 percent .

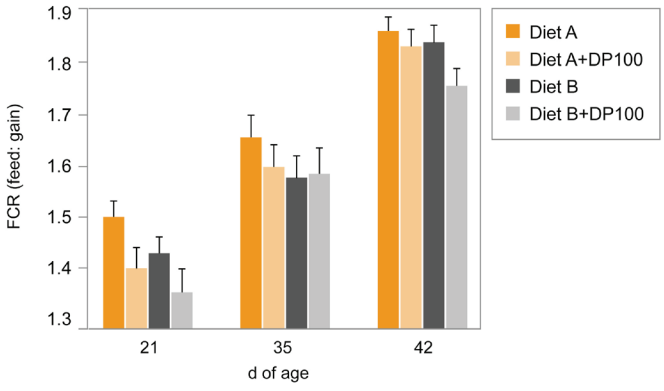
Whether you formulate on a crude protein (CP) basis or on a digestible amino acid basis, you can now maintain body weight gain and feed efficiency while reducing the protein costs of the diet.

Figures 1 and 2 show that you can reduce amino acids and CP by as much as 10% in the low protein diet and still maintain the same growth performance in broiler chicks, when the diet is supplemented with CIBENZA DP-100.

Fig 1,2. CIBENZA DP-100 Allows for Reduction of Digestible A.A.* without Compromising Performance

Diet A = 95% TSAA & LYS, NRC 1994** **Diet B = 105% TSAA & LYS, NRC 1994** **Both diets had low Crude Protein (CP)**





*A.A: Amino Acids
**TSAA: Total Sulfure Amino Acids

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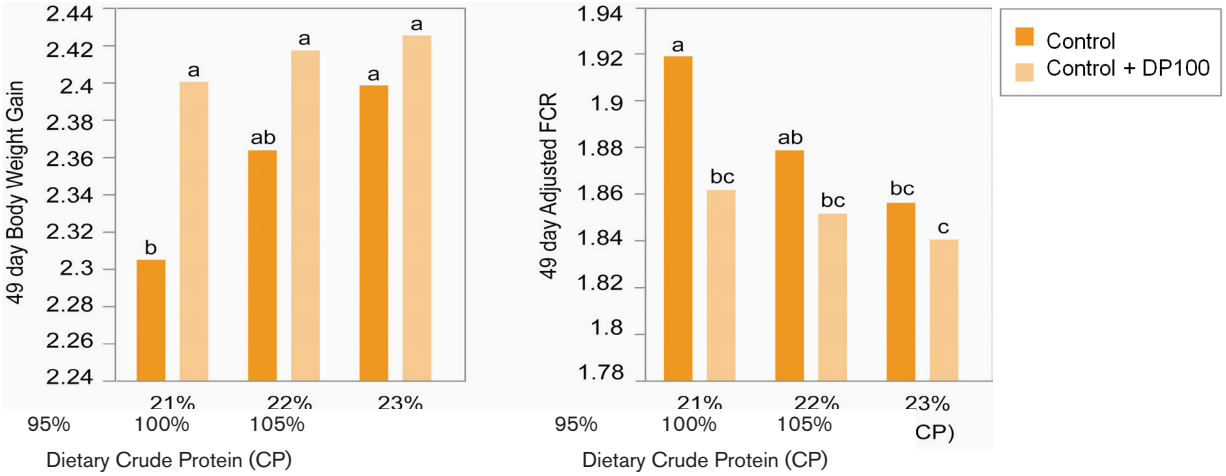
Fig 3,4. CIBENZA™ DP-100 Allows for Reduction of Crude Protein without Compromising Performance



100%=22% CP in broiler starter diets and consequently relative CP% in grower and finisher diets.

An Enzyme Suited to Today's Broiler and Layer Diets

Broad Spectrum Protease

The effectiveness of CIBENZA DP-100 has been tested using a variety of vegetable and animal protein sources including complex protein sources such as Keratin and Elastin.

CIBENZA DP-100 shows higher protein degrading effects than other proteases tested (Fig 5). This means that it can work on a variety of proteins; thus, you can use CIBENZA DP-100 in your diets, regardless of the protein source.

Heat-stable Through Pelleting

CIBENZA DP-100 is produced by a naturally thermophilic bacteria that requires, as a prerequisite for its survival, enzymes that can function at high temperatures.

Extensive commercial trials carried out in Asia and the USA, with heat conditions ranging from 80 to 100 degrees Celsius and conditioning times up to 2 minutes, have shown that CIBENZA DP-100 maintains a high enzyme activity recovery rate through commercial feed mill systems.

Fig 5. CIBENZA DP-100 Degrades a Variety of Proteins

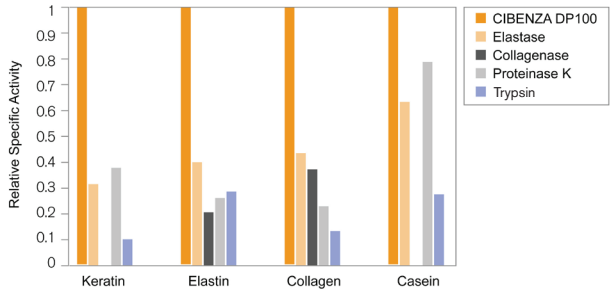
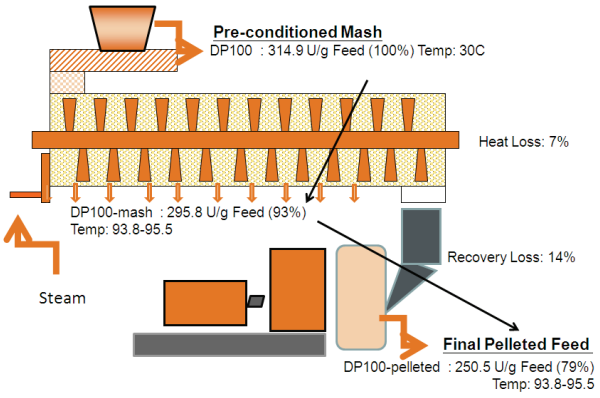


Fig 6.CIBENZA DP-100 Pellet Stability (NC Feed Mill)



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