

MatanR™



***A Nutritionally Enhanced
Protein Product***


DEVENISH
NUTRITION
The agri-technology company



MatanR™ is a condensed protein product manufactured using sugar processing technology which combines proteins, amino acids and sugars under specific conditions. By delivering amino acids in this form, MatanR™ helps to maximise nutrient utilisation.

- High GI which establishes and maintains intake.
- Supplies energy in a readily available form.
- Highly digestible.
- Low in insoluble carbohydrate and anti-nutritives.
- Delivers amino acids without excessive, non-essential protein/nitrogen.
- Delivers essential amino acids in conjunction with carbohydrates.
- Synchronised delivery of amino acids and energy.
- Encourages growth and breast muscle development.

FORMULATION OPTIONS

There are four different formulation options:

1. Existing Amino Acid Specification (EAAS)- no fishmeal
 - a) Use EAAS to reduce the amounts of pure synthetic amino acids and the dependency on soya for amino acid supply.
 - b) There is a performance and litter benefit due to the improved nutrient digestibility and a more defined release of amino acids.
2. Higher Amino Acid Specification (HAAS)- no fishmeal
 - a) Use HAAS to formulate to higher amino acid specification without increasing amounts of synthetic amino acids or soya in the diet.
 - b) There is a performance benefit by promoting muscle development without further compromise of the effects of high soya and amino acids.
3. Existing Amino Acids Specification (EAAS)- with fishmeal
 - a) This formulation is used to reduce the level of crude protein in the diet, whilst holding the same digestible amino acid specification.
 - b) The performance benefits are as detailed as before, with reduced litter N and hock burn.
4. Higher Amino Acid Specification (HAAS)- with fishmeal
 - a) This is used to reduce the amount of fishmeal added to the diet, without increasing pure synthetic amino acids and the dependency on soya for amino acid supply.
 - b) The performance benefits are as detailed as before, with reduced diet costs.

AMINO ACID ANALYSIS*

Amino Acid	Total (%)	Digestible (%)	Amino Acid	Total (%)	Digestible (%)
Lysine	4.65	4.52	Histidine	0.70	0.60
Threonine	2.00	1.80	Methionine	2.08	2.00
Tryptophan	0.34	0.30	M+C	2.65	2.48
Isoleucine	1.30	1.00	Leucine	3.90	3.30
Valine	1.50	1.10			

*Data from matrix tables

Feeding Direction

MatanR™ is suitable for early broiler, turkey and game diets:

- Starters- Incorporate up to 5%
- Growers- Incorporate up to 3%

Physical Form

Golden coloured meal.

Packaging

25kg bag, 1 tonne mini bulk or true bulk.

Storage

Store in a cool, dry place and use within 3 months of manufacture.

TRIAL AT QUEENS UNIVERSITY BELFAST, 2007

The effect of the addition of MatanR™ containing Maillard Reaction products on broiler performance.

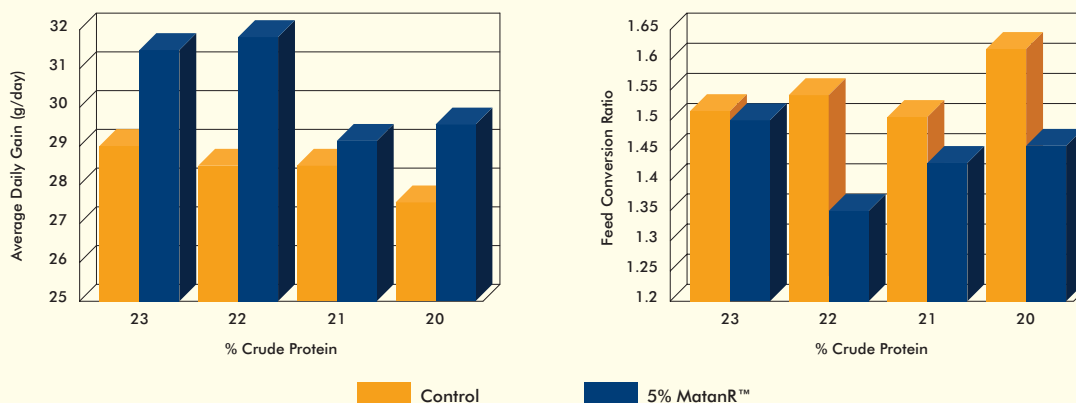
Broilers (n=200) were fed a wheat based diet *ad libitum*. All diets were balanced for amino acids. Diets were formulated to one of four protein levels giving eight treatments:

20% +/-5% MatanR™ 21% +/-5% MatanR™
 22% +/- 5% MatanR™ 23% +/-5% MatanR™.

The diet treatments were fed from 7-21 days and MatanR (36%CR) used.

Results

The addition of MatanR™ significantly (p<0.001) improved total bird live weight gain and gain:feed ratio. The AME content (1.4%) and ileal starch digestibility (1.4%) were also significantly (p<0.01) increased by the addition of the MatanR™.



Graphs showing the positive effect of MatanR™ inclusion at all CP levels

Reference: Owens, B., McCann, M. EE., Beattie, V. E., Hutchinson, M. J. and Smyth, S. (2008). The effect of the addition of a complementary feedstuff (MatanR™) containing Malliard Reaction products on Broiler performance. Proceedings of the Worlds Poultry Science Association pp 9-10

MatanR™



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We create value by developing and supplying quality nutritional products and solutions, new technologies and distinctive customer support to the Agri-Food sector in our chosen market



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