

# Blueprint<sup>®</sup>

NUTRITION PROGRAM



FORMULATED WITH  
**Alltech<sup>®</sup>**  
SOLUTIONS

# Blueprint<sup>®</sup>

NUTRITION PROGRAM





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## What is Holding our Animals Back?

Both genetics and management practices have been rapidly advancing in agriculture over the past 10 years. But has practical nutrition kept pace? Has nutrition been focused on maintaining the average peak performance of the animal, instead of adding value to its genetic potential? The Blueprint Nutrition Program is that next step in nutritional evolution.

Throughout the lifecycle of the animal, Blueprint is designed to build on its genetic potential at each life stage. Today, we can more easily identify ways to improve efficiency and performance while linking these to profitability. This is achieved by expanding the nutrient profile to a wide range of functional forms and evaluating the patterns of how the form and timing of nutrition interacts with the animal's cells.

### Moving from here:

- Limited gene expression of genetic potential for growth and development
- Limited functional nutrient variety in the diet leads to the inability to feed animals for full potential

### To here:

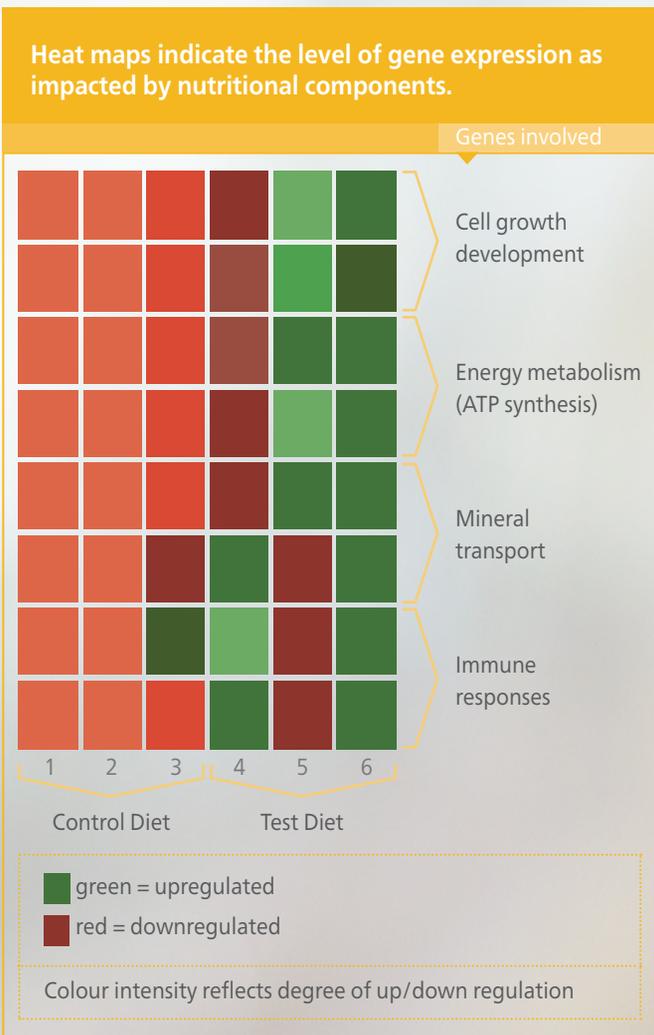
- Full expression of animals' genetic potential
- Use of nutritional innovations for optimal performance and health
- The most profitable feeding program on-farm

## Adding Value to Genetics with Nutrition

In understanding the animal at the cellular level and focusing on the requirements needed to get the desired results, Blueprint offers the opportunity to make performance and profitability a precise science.

At Alltech®, we study how nutrition influences gene expression on cells and tissues through nutrigenomics. Nutrients are a potent stimulus of gene expression. Discovering what genes are up or down regulated in cells of various tissues helps us explain why growth or performance changes. It also provides important clues on how to optimise cell, tissue and organ function with an animal's diet.

Nutrition has become more precise with nutrigenomics. Now you can begin to target your animals for both their current and future performance.



Visualising gene expression in muscle tissue cells of animals fed two different diets.

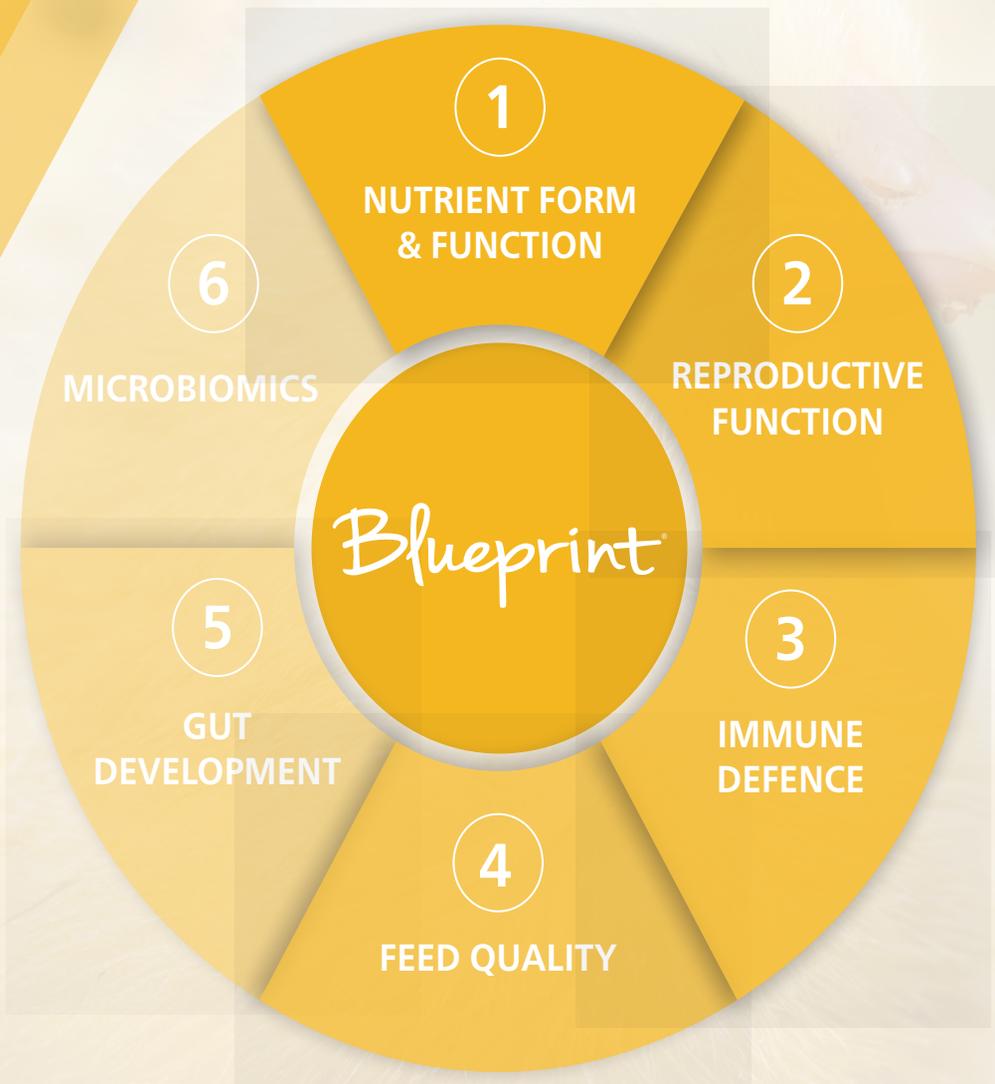
# Blueprint<sup>®</sup>

NUTRITION PROGRAM

Building the

# 6

Fundamentals  
of the Blueprint  
Nutrition program



Livestock need more than protein,  
fat and fibre – What's missing?



## NUTRIENT FORM

Using nutrition to better meet the needs of animals' genetics requires more than simply increasing nutrient concentrations in the diet or altering ingredient digestibility and bioavailability. Blueprint Nutrition contains the ingredients needed to shift nutrient profiles in practical diets toward more functional, usable forms that better meet animals' needs.



## REPRODUCTIVE FUNCTION

Today, most limiting factors or 'choke points' for productivity and reproduction are related to supplying nutrients for health and development. Can we better prepare young or transport stressed animals to meet disease and digestive challenges? Can we target diets of sows to reduce embryonic mortality? Improve conception rates? Increase neonatal vigor? Maximise performance and meat quality in progeny?



## IMMUNE DEFENCE

You can't always prevent the appearance of an unknown pathogen, but functional trace mineral nutrition can help prepare the immune system for a successful fight. In nature, plants process soil minerals into forms animals can easily digest and use. Trace minerals are nutritional weapons which can impact disease and the form in which they are presented in feed can influence their effectiveness. Organic minerals differ from inorganic forms in standard premixes because they are bound to protein fragments just like those in plants and therefore readily available when needed.



## FEED QUALITY

Inorganic minerals are mined primarily for other industries with their use in feed additives representing a small part of the target market. The use of organic trace minerals, however, targets feed safety and quality. Alltech® Q+™ (Quality Plus) is the quality control system unique to the organic trace minerals used in the Blueprint Nutrition Program. It provides HAACP-like protection against the entry of cadmium, lead, dioxins and PCBs.



## GUT DEVELOPMENT

Carbohydrates in feed come in a wide variety of forms from simple sugars to complex structural fibres. It is beneficial to consider the functional roles of CHO (Carbon, Hydrogen and Oxygen) in this respect. Fibre sources have important functions in gut motility, as other sugars and oligosaccharides (complex sugars) contribute to gut health by taking into account the harmful bacteria that begin to colonise when conditions within the GI tract are compromised.



## UNDERSTANDING THE SCIENCES BEHIND BLUEPRINT

The new science behind Blueprint include technologies that let us look at nutrition from the inside. We look at how cells, genes and gut microbe populations respond to the diet. This is nature's point of view in three areas:

- Microbiomics – The microbial population in the intestinal ecosystem reacts to altered ingredients and other environmental factors such as rancidity in fats or pro-oxidant mineral forms.
- Glycomics – A look at all the sugars in an organism and whether they are free or part of a complex molecule.
- Nutrigenomics – How nutrition affects gene expression.

Studies of these areas are possible through High-Throughput Technologies (HTT) that let us see all the proteins, sugars and genes expressed in cells of specific tissues. Finding the patterns and important interactions lets us build synergism into diets in new ways, matching diet composition to meet the genetic potential of animals.

## THE BLUEPRINT<sup>®</sup> POULTRY PROGRAM

DESIGNED FOR YOUR FARM BY OUR SPECIALIST TEAM

The Blueprint poultry program is tailored to focus on all stages of life, from prenatal development through to market, while also looking after the well-being of breeding stock. Each formulation contains:

- ✓ A well-balanced vitamin and trace mineral premix
- ✓ Nutrigenomic technology through a Blueprint nucleus pack
- ✓ Antibiotic free solutions to promote growth and digestive health

### BLUEPRINT<sup>®</sup> PULLET

Targeted nutrition to aid the transition from grow to lay. Suitable for commercial broilers, turkeys and other avian species. The Blueprint Pullet program ensures:

- ✓ Sound bone and feather development
- ✓ Feed efficiency
- ✓ Optimum growth rate and body composition
- ✓ Immune support

### BLUEPRINT<sup>®</sup> LAYER

Premium nutrition that supports laying performance, feed utilisation and bird health. Suitable for intensive, barn-laid and free-range production systems. The Blueprint Layer program ensures:

- ✓ Optimum egg production
- ✓ Feed efficiency
- ✓ High egg quality
- ✓ Immune support

### BLUEPRINT<sup>®</sup> BREEDER

The Blueprint Breeder program offers lifelong support for the parent flock and chick through precise nutrition. Suitable for broiler and layer systems. The program ensures:

- ✓ High hatchability and chick vitality
- ✓ Optimum growth and development
- ✓ Better hatchery performance from parent flock
- ✓ Immune support

# THE BLUEPRINT® POULTRY RANGE

## BREAK TRADITION WITH MODERN MINERAL MANAGEMENT

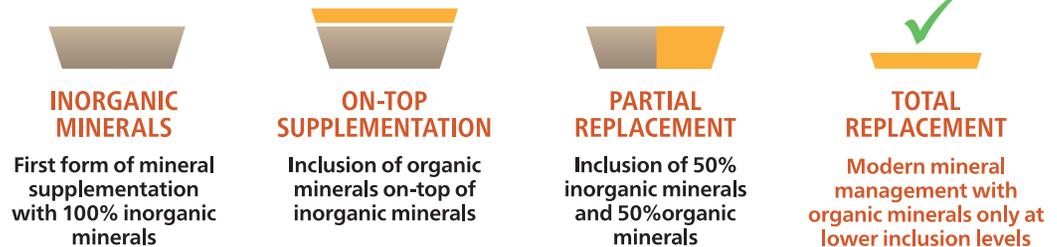
The Blueprint Poultry Range includes innovation in mineral management from Alltech Lienert Australia. This assures that organic trace minerals that are better absorbed, stored and utilised by the bird. Alltech has proven that modern management of mineral nutrition can be carried out by the inclusion of organic trace minerals at significantly lower levels than inorganic minerals, while still improving performance. We call this Total Replacement Technology.

To ensure maximum mineral bioavailability, organic minerals have been developed using chelation technology. The trace minerals are presented to the animal in a way that is comparable with their natural organic state in plants. The result is better absorption and use by the animal than inorganic trace minerals.

To find out more please call your local sales manager or contact the Alltech Lienert team on (08) 8524 8150.

### HISTORY OF MINERAL SUPPLEMENTATION

**What type of mineral diet are you feeding your bird?**



### FEEDING A 100% ORGANIC MINERAL DIET CAN



## The 5-Step Process

### Farm Analysis

From management practices onfarm to quality of ingredients in the diet, the analysis portion of Blueprint looks at every piece of the puzzle for a successful operation, making sure that each component is promoting profitability while offering practical solutions. This provides support to farmers in reaching goals, solving problems, troubleshooting and helping to lay out a foundation for a profitable and sustainable future.

### Nutritional Assessment

Using the 6 cores of the Blueprint Nutrition Program, we assess the nutritional needs of the animal and compare that with the current practices on your farm.

### RETURN Calculator

The Pig RETURN calculator highlights farm potential and return on investment for Blueprint through enhanced performance, full production potential and enhanced profitability. By identifying the impact improved performance has on margins, this tool provides a unique opportunity to compare the current levels of achievement with industry standards and set targets, supporting your decision making in all stages of production.



### On-farm Support Tools

- 37+<sup>®</sup> - Analyses and measures risk for more than 37 individual mycotoxins
- True Check<sup>™</sup> – Screens feed for expected nutrient and energy release
- MIKO (Mycotoxin Hazard Analysis Program) – Evaluates and identifies ways to reduce areas of future mycotoxin risk

### Blueprint Nutrition Recommendation

After your farm's Blueprint program is defined, our experts will provide a feeding program recommendation based on your farm's analysis and nutritional assessment. This report will identify any gaps your operation may have between your current and potential performance.

# WHAT'S IN IT FOR YOU?

## MOVING FROM ISSUES TO SOLUTIONS USING THE 5 STEP PROCESS

The 5 Step Process offers customised products and services that are included in the Blueprint Nutrition Program. This includes:

- In-depth Blueprint reports
- Return on your investment
- World first technologies
- A global knowledge base and access to technical information and assistance
- Feeding to genetic potential
- Opportunity for continuous improvement
- Empowerment of decision-making with accurate information

## OUR EXPERTISE

Our experts will work with you to implement the Blueprint® Nutrition Program as well as monitor its success and overall return on investment.

### Layer

- Enhance digestion and nutrient uptake
- Improve egg size and shell quality
- Enhance peak persistency in later
- Improve shelf life

### Breeder

- Improve:
  - Persistency
  - Hatchability
  - Egg fertility
  - Chick quality and uniformity

### Starter

- Enhance immune status
- Improve gut development and health
- Reduce mortality
- Improve uniformity

### Grow/Finisher

- Greater feed efficiency & weight gain
- Lower cost of production
- Less condemnations at processing
- Improved gut development and health

Alltech Lienert Australia manufactures, distributes and supplies ingredients, supplements and nutritional advice to the livestock and feedstock industries. We are committed to improving animal health and performance - and our customers' bottom line - through quality, consistent, and fully-traceable nutritional technologies including: premixes, concentrates and supplements.

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Alltech is a global leader in the animal health and nutrition industry and among the top 10 animal health companies in the world. We develop natural, scientific solutions to today's biggest agriculture and food industry challenges.

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