

**An overview of some of the key additives  
that can be included in your poultry feed**



*Advancing Poultry Performance*

# An overview of some of the key additives that can be included in your poultry feed

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# Introduction

## Poultry Nutrition – some background

- Today's complete feeds already contain a carefully balanced mixture of nutrients needed by your birds. Depending on your flock's needs, they can also be augmented by a range of extra additives, either naturally sourced or copied from naturally occurring substances to food safety standards.
- Poultry feed offers not just energy, but the building blocks and nutrients that healthy and productive birds need to grow and become productive.
- Your birds rely on you to make the right decisions about feed.

## Nutritional Considerations

Although birds broadly require a common nutritional foundation for each stage of their development, no two flocks are identical. Environmental or commercial factors will demand additional nutritional support, tailored to maintain the flock's welfare and productivity, for example:

- Age
- Activity
- Organically reared
- Flock size
- Housing (fixed or mobile)
- Disease or parasites present
- Exposure to stress (frequent handling, transportation, breeding)

Each factor makes different dietary demands on birds that can be fulfilled with feed additives.



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# Yolk pigments

## A natural pigment to add colour to your birds' eggs

Yolk colour is very important in the appeal of eggs to the consumer and what is acceptable varies widely around the world.

In order to ensure an appetising rich yolk colour is produced, the bird's diet needs to contain the right mixture of both red and yellow elements.

The colour pigments used in chicken feed come from natural sources such as marigold (yellow) and paprika (red) where available, or they are food-grade, nature-identical products. Currently it is difficult to affect the colour in organically produced eggs due to the stricter controls on feed additives.

Within the yellow / marigold element, is lutein - an antioxidant which destroys dangerous chemicals in our bodies linked to many diseases.

## Good for your health

Lutein is found naturally in many superfoods including kale, broccoli and citrus fruits. As well as making an excellent pigment, research is revealing lutein's health properties such as: helping fight some forms of cancer, combating diabetes, delaying age-related macular degeneration, protecting skin from the effects of ageing and lowering the risk of strokes and heart attacks.

## Benefits?

- ✓ Helps fight some cancers
- ✓ Safeguards against diabetes
- ✓ Delays age related macular degeneration
- ✓ Lowers risk of strokes and heart attacks
- ✓ Protects skin from signs of ageing

## Key points:

- ✓ Standard within complete feed
- ✓ More can be added to change the level of pigment in the yolk

## What is it?

- ✓ Natural or nature-identical pigment



# Sodium Bicarbonate

## How does sodium bicarbonate help your birds?

Sodium bicarbonate is familiar to any baker by its common name of bicarbonate of soda.

It is an alkaline salt and it can help regulate the acid-alkali balance in the blood. It also influences the movement of fluids in and out of cells which determines electrolyte density in the blood.

A small addition of sodium bicarbonate in the diet will have a significant effect on maintaining a healthy electrolyte balance in the blood for a healthy bird.

## Maintaining essential electrolyte balance for healthy body functioning

Electrolytes are electrically charged ions that are dissolved in the blood, including sodium, calcium, potassium, chlorine, phosphate and magnesium. They come from our diet and play an important role in many of your body's functions, including muscle action and transmitting nerve impulses.

Electrolytes play an important role in many functions such as muscle and nerve activity and heart beat and it helps keeps the birds calm.

## Benefits?

- ✓ Keeps birds calmer
- ✓ Regular heartbeat
- ✓ Bone strength
- ✓ Anti-seizure
- ✓ Prevents numbness
- ✓ Stable blood pressure

## Key points:

- ✓ Standard within complete feed
- ✓ More can be added if the birds need calming

## What is it?

- ✓ An alkaline salt that regulates electrolytes



# Actigen

## What is Actigen?

Actigen is a beneficial bacteria made from a specific strain of yeast. It acts as a prebiotic, which is an indigestible material that promotes the growth of the right kind of bacteria.

## How does Actigen work?

A prebiotic acts as a food for the good bacteria already existing in a bird's gut. By helping to promote this beneficial bacteria and fighting harmful bacteria, Actigen maintains your birds' gut health.

## Benefits for your birds

Gastrointestinal health and integrity are essential for any animal's performance. Actigen plays a critical role in animal nutrition and production.

## Benefits?

- ✓ Inhibits adherence of salmonella to gut wall
- ✓ Maintains gut health
- ✓ Normalises gut microflora
- ✓ Improves natural defences
- ✓ Aids digestive system function
- ✓ Lowers risk of diarrhoea

## Key points:

- ✓ An additive promoting gut health

## What is it?

- ✓ Prebiotic



# Marine Shells

## Providing a source of Calcium for skeletal and egg development

### Why do poultry need calcium?

Calcium is one of the most important elements in a laying bird's diet. It is essential for skeletal development in the young bird, but is also key for shell development in the mature layer.

### Sources of calcium

There are 2 grades of limestone (calcium carbonate) already present in our poultry feed – a small fine grade which is quickly absorbed and one with a larger particle size which is more slowly absorbed.

Crushed marine shell can be added to feed as the laying birds age, providing additional larger particles of calcium. This supports the health of the gizzard as well as making slower release calcium available while a shell is being produced.

### Benefits?

- ✓ Skeletal growth in young birds
- ✓ Egg formation in mature layers
- ✓ Maintains gizzard health

## Key points:

- ✓ An additive for gizzard health

### What is it?

- ✓ Calcium



# Sel-plex

Sel-Plex, a source of organic selenium, is an important trace element in the diet. While selenium itself is already present in the bird's diet, levels can occasionally be increased where required for breeding purposes.

Selenium is a constituent of several essential amino acids that play a key role in a bird's metabolism, including growth, reproduction and the immune system.

Sel-Plex plays a vital role in optimising bird health and egg viability, as well as contributing to breeding performance through improved sperm motility and vigour, and, importantly, chick immunity.

Sel-Plex mimics nature, allowing Selenium to be more easily absorbed, stored and used by your birds than inorganic selenium.

## Benefits?

- ✓ Bird health
- ✓ Egg viability
- ✓ Chick immunity

## Key points:

- ✓ Can be added to specialised diets

## What is it?

- ✓ Natural source of Selenium





# Medical and Zoo-technical Treatments

There are a range of medical and zoo-technical treatments that are available under veterinary supervision, these are used to assist bird health when required.

Circumstances under which these treatments are used are rare. Examples of diseases that may need medical or zoo-technical treatment are Coccidiosis and Worms.

## Coccidiosis

Outward signs of coccidiosis in chickens include listlessness, loss of appetite, pale combs and wattles, ruffled feathers, huddling or acting chilled, blood or mucus in the faeces, diarrhoea, dehydration, and even death.

Coccidiosis would require medical treatment.

## Worms

Flubenvet is a broad spectrum wormer which is effective against most worms throughout their life cycle. It is very effective at killing both adults and their eggs. It is an in-feed medication which is recommended for use over a maximum 7-day period.

Worms would require zoo-technical treatment.

## Key points:

- ✓ Added on demand
- ✓ Used rarely

## What is it?

- ✓ Veterinarian prescribed treatment



# In Summary

Feed additives play an important part in maintaining the health of your birds, protecting them against infection and optimising productivity. Many of them are from natural sources and all are important for a balanced diet.

The combination used will depend on the age and needs of your flock, and should be determined in consultation with your feed consultant.

## Complete feeds

Humphrey Feeds and Pullets produce many complete compound feeds. 'Complete' is a legal term which means that the feed provides all the nutritional requirements for your birds.

Our poultry specialist will work closely with you to tailor your feed to the specific needs of your flock.

If you would like to find out more about how we can supply a nutritionally balanced feed for your flock, keeping your birds healthy and optimising production, then please email us at [enquiries@feedsandpullets.co.uk](mailto:enquiries@feedsandpullets.co.uk) or call us on **01962 764510** or **01691 858512**.



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