KW Complete Dairy

A high specification supplement for lactating dairy cows fed a total or partial mixed ration containing feed ingredients rich in phosphorus, e.g. brewery and distillery grains, maize meal and gluten feed, palm kernel meal, wheatfeed, plus, rape, soya and sunflower protein meals.

Specification

Vitamin	iu/kg	**Major Mineral**	%	**Trace Element**	mg/kg
Vitamin A	550,000	Calcium	24.5	Cobalt	75
Vitamin D	125,000	Magnesium	5	Copper	1000
Vitamin E	2000	Phosphorus	2	Iodine	400
Proviox*	1000	Salt	20	Manganese	2000
Vitamin B_{12} (mcg/kg)	1000	Sodium	8	Selenium	30
				Zinc	7000

*Proviox contains compounds with anti-oxidant properties that are complementary to Vit E.

Needs, Features and Benefits

NEED	**FEATURE**	**BENEFIT**
Optimise cost benefit	• Formulated to the latest recommendations • High bio-availability	• No waste • Ensures production is not constrained
High productivity	• All trace elements that act as 'catalysts' for processing feed	• Good feed efficiency
Optimise immune system	• Key micronutrients for immunity such as, Vitamins A, E, and Proviox a powerful anti-oxidant which 'regenerates' Vit E extending its life span, plus copper, manganese, selenium and zinc	• Insures immune system is not constrained by nutrition, e.g. risk of mastitis and retained cleansings
Maintenance of strong bones	• Calcium and phosphorous to complement forages, recognising the bio-availability of background sources.	• Reduction in losses due to leg problems • Reduction in the incidence of milk fever
Optimise rumen vitamin B_{12} production	• Cobalt to ensure only active vitamin B_{12} is produced in the rumen	• Efficient energy metabolism
Good stability and dispersion	• A high quality carrier that avoids separation	• Minimises variation in micro-nutrient supply • Consistent performance

The predicted responses (benefits) assume that the specified nutrient, physical or structural dietary components are limiting livestock performance in the current ration.

Recommended Daily Feed Rates

- Feed at 20 to 25g/day per kg of un-mineralised concentrate – moist feeds should be converted to 100% dry matter. Where no other mineralised feeds are offered a minimum of 100g/day should be fed. Feed rates should not exceed 300g/day
- Add to the TMR ration at the latter stages of mixing, top dress or make 2 / 3 days requirement available in containers away from the water source.

Micronutrients in Health and Production

It is vital that micronutrients are fed in accordance with the latest recommendations. The table below summarises the key functions of micronutrients and the deficiency symptoms if inadequate levels are fed.

Micronutrient	Key Function	Deficiency Symptoms
Vitamin A	Skin, vision, bone growth, reproduction and immune system	Reduced absorption of nutrients, loss of appetite, reduced growth, rough hair, nasal discharge, blindness, water retention, decreased sexual activity, irregular oestrus, foetal death and weak young.
Vitamin D	Regulation of calcium and phosphorus	Soft irregular shaped ribs and long bones, stiffness, swelling of joints, decreased appetite.
Vitamin E	Antioxidant, hormone production, blood clotting, immune function.	Muscle damage, retained cleansings, predisposition to mastitis
Cobalt	Synthesis of vitamin B12 by rumen micro-organisms, role as cobalt within the body	Reduced appetite, weight loss, lower milk production, muscle wasting, anaemia
Copper	Blood formation, many enzymes systems, bone, hair and wool formation, immune system	Anaemia, reduced growth and milk production, scours, de-pigmentation, impaired bone formation and disorders of the nerves.
Iodine	Production of thyroid hormones that regulate energy metabolism, growth and development	Swelling of the thyroid gland (goitre), reduced, milk production, growth reproductive activity, prolonged calvings, increase in stillborn calves, retained placenta and endometritis.

Micronutrient	Key Function	Deficiency Symptoms
Manganese	Fat and carbohydrate metabolism, reproduction, growth and correct bone formation and immune function	Slow growth, skeletal abnormalities, poor reproductive status and poor immunity.
Selenium	Antioxidant and immune system	Muscle damage, reduced fertility, slow growth and anaemia.
Zinc	Skin, growth, development, reproduction, bone and blood formation and many enzyme systems	Skin, hair and wool problems, reduced growth rate, slow wound healing and reduced immune system.
Calcium	Skeleton, muscle activity, milk constituent and enzymes.	Twisted bones, milk fever, twisted abomasums and reduced appetite.
Chloride	Maintaining electrolyte balance	Reduced milk production and growth.
Magnesium	Skeleton, muscle function and nervous system	Tetany, Predisposition to milk fever, Reduced forage digestion
Phosphorous	Skeleton, energy production, cell membranes and reproduction	Twisted bones, milk fever, poor fertility and reduced appetite.
Sodium	Maintaining electrolyte balance	Reduced milk production and growth

Availability, handling and storage

KW Complete Dairy is available all year round, UK wide and can be delivered direct to farm in 25kg bags. The minimum order quantity is 1.0 T. KW Complete Dairy should be stored out of direct sunlight in a cool, dry environment. Use within a year of the date of manufacture, as displayed on the bag.

Additional information

Quality Assurance

KW Complete 4 is a FEMAS-assured product and is marketed by KW Alternative Feeds, a UFAS-accredited company.

Legal Disclaimer

Suggested feeding rates are produced as a guide only and many other factors may have an overriding effect on animal response; no performance guarantee can be given. Rations should be carefully balanced for energy and protein, contain sufficient forage to maintain rumen function and be fortified with an appropriate vitamin and mineral supplement. Animals must have constant access to clean water.