



# BOLUS TECHNOLOGY

180 days of core strength for  
dairy and beef cattle



**COPPER**  
Growth and fertility

**SELENIUM**  
Fertility and effective immune status

**COBALT**  
Appetite, growth and fertility

**IODINE**  
Improved metabolism and better calf vitality



# Why trace elements are essential for your Cattle?

Over recent years we have learnt a lot about how the correct balance of trace elements is essential for ruminant animals to achieve their full performance.

Nutritionists, veterinary surgeons and ruminant advisors have seen major quantifiable improvements in performance from ensuring animals have the precise quantities of vital trace elements they need at key stages of their production cycle.

## SELENIUM

Selenium has an anti-oxidant function crucial to controlling oxidant stress at critical stages of development. Selenium plays an important role in promoting growth, fertility and a healthy immune system.

## COBALT

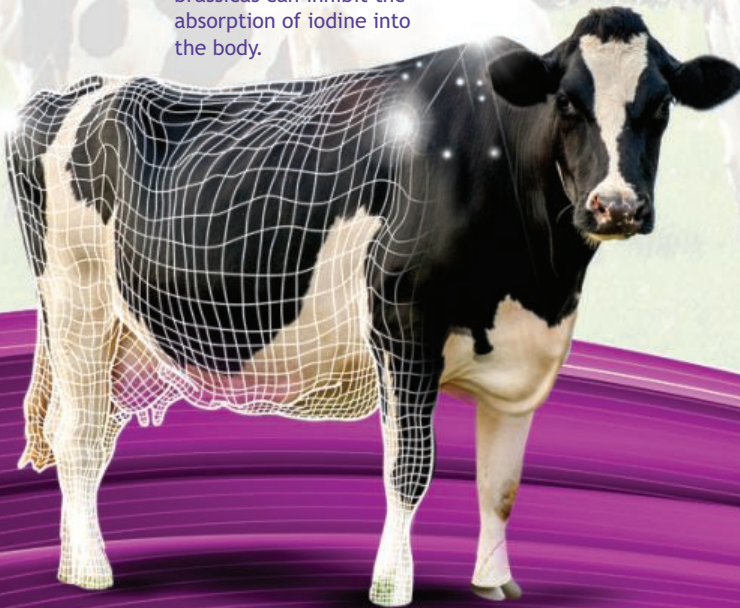
Rumen microorganisms need a constant supply of cobalt in order to produce vitamin B12, which is essential in the breaking down of feed and a more efficient conversion to liveweight. Cobalt plays an important role in ensuring optimum appetite, growth and vigour.

## IODINE

Iodine is incorporated into the hormones produced by the thyroid gland. A healthy functioning thyroid maintains metabolism therefore promoting efficient weight gain. The feeding of rape, roots or other brassicas can inhibit the absorption of iodine into the body.

## COPPER

Copper is crucial for inclusion in enzymes/proteins that are important for growth and fertility.



# What are Agrimin 24•7 Smartrace Cattle boluses?

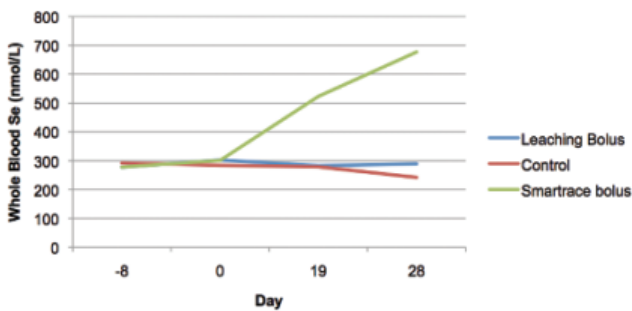
Developed by the Agrimin technical team in conjunction with Glasgow Veterinary School and researched extensively in New Zealand, Agrimin 24•7 Smartrace technology is a 'best practice' precision nutrient delivery system to optimise ruminant performance designed and manufactured in the UK.

Agrimin 24•7 Smartrace technology is specifically designed to deliver only what your cattle require, cutting out costly waste, using our latest sustained release concept to deliver precise levels of key trace elements at all times.

## Efficacy Data

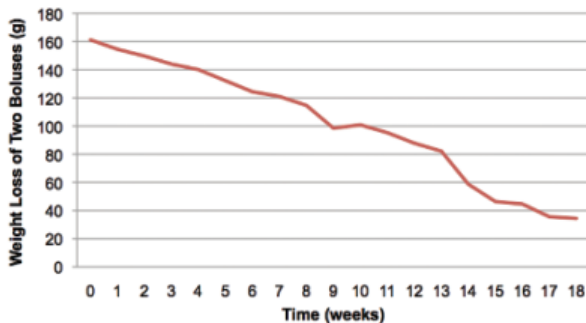
The graph shows the blood selenium levels of cattle grazing pasture with a marginal selenium status measured before and after administration of 24•7 Smartrace technology.

Whole Blood Selenium following bolus administration



24•7 Smartrace boluses are tested in fistulated cattle to measure the rate of breakdown of the boluses in order to show that the boluses supply accurate levels of trace elements everyday of their active life. The graph shows the consistent release of 24•7 Smartrace technology in fistulated cattle over a period of 18 weeks.

Mean Release Profile of 3 cows with Eroding Boluses







# The journey of the Agrimin 24•7 Smartrace Plus

One Agrimin 24•7 Smartrace Plus bolus gives each cow 180 days of highly cost-effective trace element support.

1

24•7 Smartrace Plus bolus is given to the cow with the specially designed applicator and moves down the animal's oesophagus.

2

24•7 Smartrace Plus bolus moves down to the rumen and lodges safely in the cow's reticulum. Wrapper dissolves and bolus breaks into three core elements.



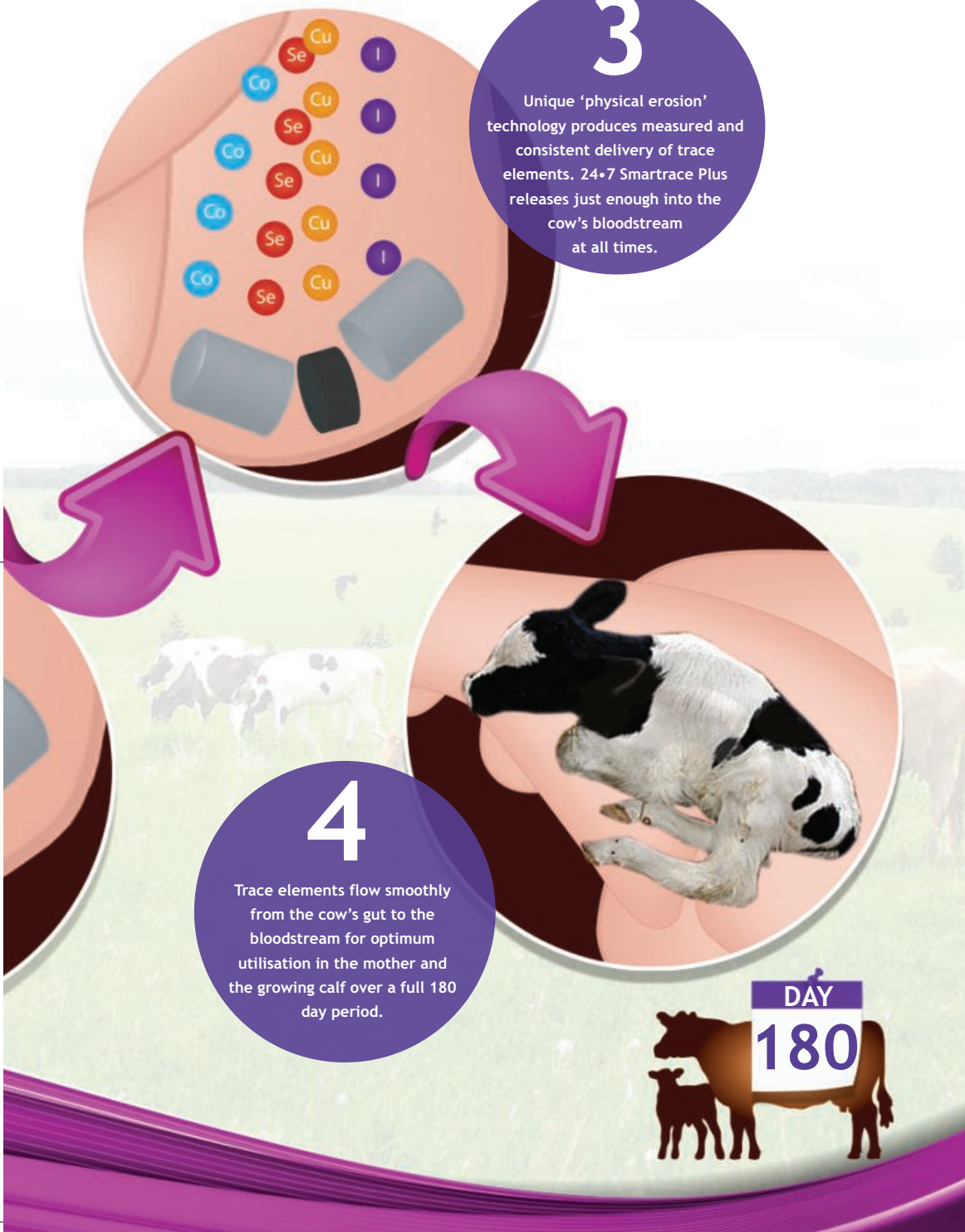
3

Unique 'physical erosion' technology produces measured and consistent delivery of trace elements. 24\*7 Smartrace Plus releases just enough into the cow's bloodstream at all times.

4

Trace elements flow smoothly from the cow's gut to the bloodstream for optimum utilisation in the mother and the growing calf over a full 180 day period.

DAY  
180



# Agrimin 24·7 Smartrace technology is available in two formulations

**24·7 Smartrace Growing Cattle** contains selenium, cobalt and iodine only with no copper.

Active composition	mg/kg (Packaging)	Average daily supply over 180 days from 130g bolus
Iodine (Calcium Iodate)	25870	18.7
Selenium (Sodium Selenate)	1378	1.0
Cobalt (Cobalt Carbonate)	3032	2.2

Ingredients: Minerals, zinc powder and wax. All figures expressed as a proportion of total bolus weight.

**FOR BOVINE USE ONLY.**

Agrimin 24·7 Smartrace Growing Cattle:

- Boluses are suitable for use in cattle 200-400kg liveweight.
- Give one bolus to each animal using Agrimin cattle applicator A.
- Agrimin 24·7 Smartrace Growing Cattle has an active life of 180 days. There is no residue.
- Agrimin 24·7 Smartrace Growing Cattle boluses are available in packs of 10 boluses.



**24·7 Smartrace Plus Growing Cattle** contains optimum levels of copper, selenium, cobalt and iodine.

Active composition	mg/kg (Packaging)	Average daily supply over 180 days from 150g bolus
Iodine (Calcium Iodate)	22421	18.7
Selenium (Sodium Selenate)	1194	1.0
Cobalt (Cobalt Carbonate)	2627	2.2
Copper (Copper Oxide)	112000	93.3

Ingredients: Minerals, zinc powder and wax. All figures expressed as a proportion of total bolus weight.

**FOR BOVINE USE ONLY.**

Agrimin 24·7 Smartrace Plus Growing Cattle:

- Boluses are suitable for use in cattle 200-400kg liveweight.
- Give one bolus to each animal using Agrimin cattle applicator A.
- Agrimin 24·7 Smartrace Plus Growing Cattle has an active life of 180 days. There is no residue.
- Agrimin 24·7 Smartrace Plus Growing Cattle boluses are available in packs of 10 boluses.



**24·7 Smartrace Adult Cattle** contains selenium, cobalt and iodine only with no copper.

Active composition	mg/kg (Packaging)	Average daily supply over 180 days from 160g bolus
Iodine (Calcium Iodate)	25870	23.0
Selenium (Sodium Selenate)	1378	1.2
Cobalt (Cobalt Carbonate)	3032	2.7

Ingredients: Minerals, zinc powder and wax. All figures expressed as a proportion of total bolus weight.

*FOR BOVINE USE ONLY.*

Agrimin 24·7 Smartrace Adult Cattle:

- Boluses are suitable for use in cattle over 400kg liveweight.
- Give one bolus to each animal using Agrimin cattle applicator A.
- Agrimin 24·7 Smartrace Adult Cattle has an active life of 180 days. There is no residue.
- Agrimin 24·7 Smartrace Adult Cattle boluses are available in packs of 10 boluses.



**24·7 Smartrace Plus Adult Cattle** contains optimum levels of copper, selenium, cobalt and iodine.

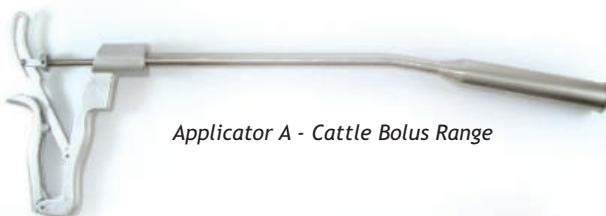
Active composition	mg/kg (Packaging)	Average daily supply over 180 days from 195g bolus
Iodine (Calcium Iodate)	21288	23.0
Selenium (Sodium Selenate)	1134	1.2
Cobalt (Cobalt Carbonate)	2495	2.7
Copper (Copper Oxide)	129603	140

Ingredients: Minerals, zinc powder and wax. All figures expressed as a proportion of total bolus weight.

*FOR BOVINE USE ONLY.*

Agrimin 24·7 Smartrace Plus Adult Cattle:

- Boluses are suitable for use in cattle over 400kg liveweight.
- Give one bolus to each animal using Agrimin cattle applicator A.
- Agrimin 24·7 Smartrace Plus Adult Cattle has an active life of 180 days. There is no residue.
- Agrimin 24·7 Smartrace Plus Adult Cattle boluses are available in packs of 10 boluses.



*Applicator A - Cattle Bolus Range*





# Real World Results

“ *The effects were really dramatic. We used it on difficult breeders to start with, and I'd say that 90 percent of the cows we were struggling with were in calf within a matter of weeks. We had far fewer, if any, dirty cows and also noticed a marked difference in calf health and vigour.* ”

John Snell, Dairy Farmer, Devon.

“ *We were suffering a great deal from slow calving and 'sleepy calves'. Our vet identified shortfalls in iodine and selenium and recommended Agrimin boluses. Since then we have seen easy, clean calvings and have been very pleased with the vigour of the calves.* ”

Peter Williams, Beef Farmer, Monmouthshire.

“ *We have had many problems with minerals in the herd, especially copper. Since using Agrimin boluses we are now maintaining good levels of fertility and calving is much easier. In fact, this year we have only had to help three or four cows at calving.* ”

John Yeomans, Beef Farmer, Mid Wales.



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