AgriSea Animal Nutrition for Drystock Operations

I. Product Mechanism: The Science of AgriSea Animal Nutrition

AgriSea Animal Nutrition is based on a proprietary, cold-fermented extract of the native seaweed *Ecklonia radiata*. This process ensures the preservation of critical bioactive compounds, delivering a dual action in ruminant performance:

- **Antioxidant Defense:** The preserved **polyphenols, laminarins, and fucoidans** act as potent, natural antioxidants, neutralizing reactive oxygen species (ROS). This reduces **oxidative stress**, allowing the animal to direct energy to growth, production, and immune function.
- **Rumen Stimulation (Prebiotic Effect):** The bioactive compounds and complex polysaccharides serve as **prebiotics**, **probiotics and post-biotics** significantly stimulating beneficial rumen bacteria. This enhances fermentation efficiency, leading to a greater production of **Volatile Fatty Acids (VFAs)** - the primary energy source for ruminants.

II. Key Performance Indicators (KPIs) by Species

Species	Trial/Study	Key Result	Performance Increase	Implication
Sheep	Maternal Supplementation (SWO)	Plasma Total Antioxidant Status (TAS) in Lambs	**13–14% increase**	Proven maternal transfer of antioxidant protection to offspring at weaning.
Sheep/Lamb	Lincoln University Study	Lamb Average Daily Gain (ADG) on Bio-stimulant Pasture	**12% higher**	Faster growth rates across various pasture types.
Sheep	Lincoln University Study	Non-esterified fatty acids (NEFA) in Ewes/Lambs	**Significantly lower**	Superior energy balance; reduced reliance on breaking down body fat reserves.

Dairy Cow	Beck PhD Thesis	Total Antioxidant Status (TAS)	**15% higher**	Reduction in physiological stress around calving.
Beef Cattle	Flay Project	Daily Weight Gain	**23% increase** (extra 0.18 kg/day)	Significant economic advantage in finishing programs.
Beef Cattle	Flay Project (ROI)	Economic Return	**$0.90 for every $0.05 spent**	High return on investment (ROI) via increased weight gain.

III. Pasture Quality Impact (Lincoln University Ryegrass/Clover Study)

The application of seaweed bio-stimulants to Ryegrass-White Clover (RW) pastures directly improved feed quality:

- **Feed Digestibility:** Increased **Dry Matter Digestibility (DMD)** and **Metabolisable Energy (ME)**.
- **Fiber Reduction:** Reduced fiber content (**NDF and ADF**), making the pasture more nutritious for stock.
- **Milk Quality:** Ewes on treated pasture produced milk with elevated concentrations of **omega-6 fatty acids** and **essential amino acids**.

IV. Application

AgriSea Animal Nutrition Dose Rates

Stock Class	**Liquid Dose (Drench)**	**Frequency / Timing**
Cattle / Beef	10ml per animal Weaning 50-100ml per animal	Maintenance: 10ml per day (in water) or drench 4 times/year Rising 1yo @ 220-300kg once off Every 4-6 weeks for fattening cattle

Calves	20ml (on arrival)	5ml per head/day in milk until weaning
Sheep (Ewes)	20ml per animal	4 times per year
Rams	50ml per animal	Pre-tup (pre-mating)
Hoggets	15ml per animal	4 times per year
Lambs	5ml per animal	At docking/tailing
Lambs (Growers)	10ml per animal	Whenever they are in the yard 4-6 weeks.

Application Methods

AgriSea is highly versatile and can be administered in several ways:

- **Oral Drench:** Direct administration for immediate nutrient boost.
- **Water Troughs:** Can be added to water systems (inline dispensers) for continuous maintenance. Or trough dose.
- **Over Feed:** Spreading the liquid or "Animal+" solid over hay, silage, or meal.
- **Lick Blocks:** AgriSea also offers **Seaweed Salt Blocks** (1 block per 40 sheep or 8 cattle).