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Rumen-Protection System for Feed Ingredients

Tech ID: 11365 / UC Case 2002-280-0

ABSTRACT

Delivery system for protecting feed ingredients passing through the rumen of cattle.

FULL DESCRIPTION

A delivery system that protects feed ingredients (e.g. nutrients, medicaments) as they pass through the rumen of cattle (or other ruminant animals) has been developed by UC Davis researchers. This system enables ingredients to pass through the rumen unmodified. Allowing presentation of these protected feed ingredients to the intestine, where they can be absorbed into the bloodstream and utilized by the animal - including being incorporated into the milk. This system has been used for example, to elevate the level of Omega-3 fatty acids in cow's milk, by preventing omega-3s that have been protected with this system from modification in the rumen after being fed to the animal.

APPLICATIONS

- ▶ Modification of physico-chemical and sensorial characteristics of milk and dairy products (e.g. improved spreadability of butter or controlling flavor development in cheese)
- ▶ Modulate the composition of milk in a way that significantly enhances the nutritional value and health benefit (e.g. production of milk high in Omega-3 fatty acids)
- ▶ Orally deliver medicaments, potentially easing vaccination and other therapeutic interventions

FEATURES/BENEFITS

- ▶ No FDA approval required
- ▶ Utilizes only natural, plant-or animal-derived ingredients
- ▶ Can be used in organic dairy
- ▶ Involves accepted food-and feed ingredients and unit operations

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	7,700,127	04/20/2010	2002-280

PATENT INFORMATION

Issued Patents

Australia Patent 2003249213 issued on Feb 23, 2009
New Zealand Patent 538087 issued on Aug 9, 2007

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OTHER INFORMATION

KEYWORDS

rumen, cattle, rumen
protection system

CATEGORIZED AS

- ▶ **Agriculture & Animal Science**
- ▶ Animal Science
- ▶ Nutraceuticals

RELATED CASES

2002-280-0

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