

Case Study

Contract Research: Alltech Inc



Key Facts

- Alltech Inc is a leading animal health and nutrition company which aims to improve animal health and performance by adding nutritional value to feed naturally by through yeast fermentation and enzyme technology.
- Alltech produced a selenium-yeast CNCM I-3060 (an organic form of selenium) which was granted registration for use within the EU (n° 3b8.10) as a nutritional feed additive.
- All UK and EU soils, and therefore food crops, are selenium deficient.
- Alltech enlisted the help of Dr Darren Juniper, Senior Research Fellow, School of Agriculture, Policy and Development at the University of Reading, for help in tolerance and efficacy studies.
- Research showed Alltech's product to be far superior to previous alternatives.

The Client

Alltech Inc have been producing a range of natural products and solutions for the animal feed industry for over 28 years and is now one of the leading animal health and nutrition companies in the world. Specialising in animal feed additives, Alltech aims to improve animal health and performance by adding nutritional value to feed naturally through yeast fermentation and enzyme technology.

Alltech is a science based organisation with bioscience centres in the US, Ireland and Thailand, with a strong commitment to research and a track record of turning that research into effective feeding solutions.

The Challenge

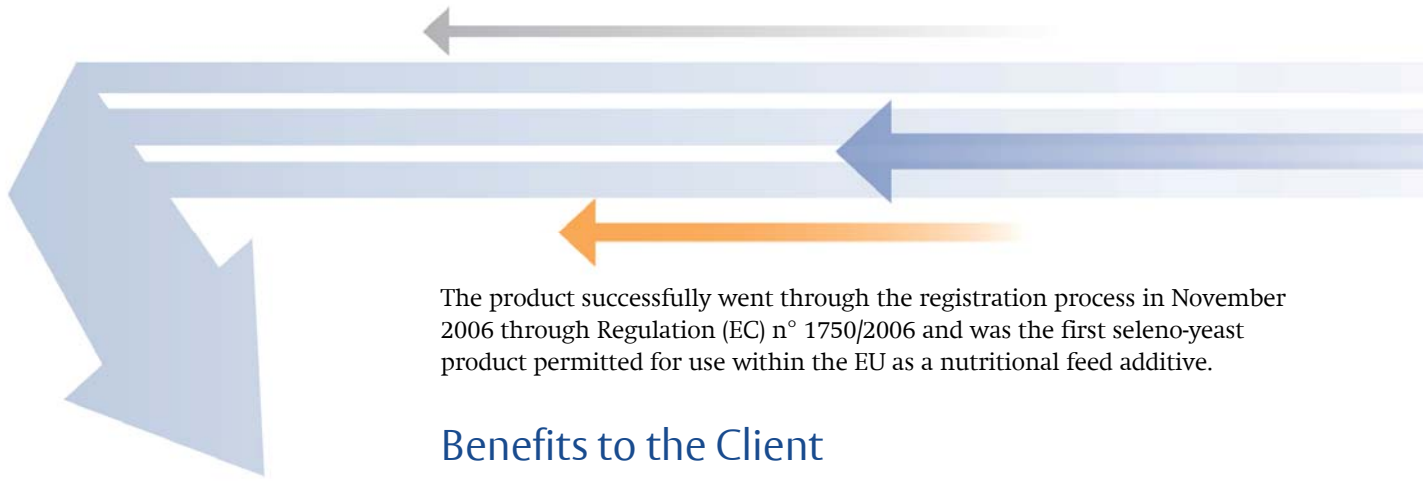
Feed additives are used in animal nutrition to improve the quality of the feed and to improve the animals' performance and health. Any product that is fed to livestock has to go through a registration process which includes a scientific evaluation to demonstrate that the product has no harmful effects on humans, animal health or on the environment, as well as behaving and performing exactly as expected. The registration process involves completing a number of tolerance and efficacy tests.

Alltech produced a selenium-yeast CNCM I-3060 (organic form of selenium) which granted registration for use within the EU (n° 3b8.10) as a nutritional feed additive. The product had already undergone toxicity testing and was shown to be significantly less toxic than the current inorganic alternatives.

Alltech wished to market their seleno-yeast within the EU, and for registration purposes, had to undertake a number of independent tolerance and efficacy studies to establish both product safety and efficaciousness. The University of Reading undertook a number of the tests required for the registration.

Solution

The University undertook the first series of tolerance tests on ruminant livestock in 2005, establishing the safety of the product. A second round of independent tests on efficaciousness was undertaken in 2007 on a range of domestic livestock and game birds using the Meat and Growth facilities at the University of Reading's Centre for Dairy Research (CEDAR).



The product successfully went through the registration process in November 2006 through Regulation (EC) n° 1750/2006 and was the first seleno-yeast product permitted for use within the EU as a nutritional feed additive.

Benefits to the Client

The University, in negotiation with the client, suggested further areas of data capture, which in addition to existing proposals, added significant value to on-going studies.

The University also suggested further areas for research - with regards to animal product quality - in consultation with the company's EU Regulatory Affairs Department.

The product has gone through registration and a number of studies that provided data for registration were conducted at Reading.

The studies conducted showed Alltech's product to be far superior to current inorganic alternatives.

Benefits to the University

The studies have prompted further research for the University, raised its profile in the research field of selenium and provided the academics involved with entry into a new field of selenium research.

The collaboration has allowed the academic and the University to interact with world renowned experts in the field of both animal and human selenium nutrition.

Alltech have been very supportive of the knowledge gained from the research and regularly assist the University in presenting at conferences globally and in the production of peer reviewed scientific papers relating to selenium speciation and distribution.



'Alltech chose to work with the University again because the company had such good service in the past and we now have an excellent collaborative working relationship.'

Dr Darren Juniper
Senior Research Fellow
School of Agriculture, Policy
and Development

University of Reading

The University of Reading is a world-class research-intensive university covering a broad spectrum of disciplines across the Life and Physical Sciences, Arts and Humanities, Social Sciences and Henley Business School. Areas of particular strength include: Climate Systems Science, Preventative and Therapeutic Health Sciences, Sustainable Construction and Environments and Computational Science and Informatics.

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