



## **NOVACQ(TM) TRIALS DELIVER 37% UPLIFT IN PRAWN SURVIVAL RATES**

Melbourne, Australia, 3 April 2017:

Ridley Corporation Limited (**Ridley**) (**ASX: RIC**) today advises that in recent prawn trials at Mackay, a 37% improvement in prawn survival rates has been achieved with Novacq™ diets compared to the control ponds.

Prawn feed trials to test the performance of Novacq™-inclusive diets against a standard commercial Ridley control diet commenced in August 2016 at Australian Prawn Farms (**APF**) in Mackay. The survival rate of the Novacq™-inclusive ponds was far greater than anticipated, such that the trial ponds reached maximum dissolved oxygen capacity after 90 days. With insufficient oxygen in the ponds due to the combination of stocking density and prawn growth, a destocking of the Novacq™-inclusive ponds was required. This early harvesting of the larger size prawns compromised the growth and nitrogen reduction<sup>#</sup> aspects of the trial.

The data from the end of trial harvest in March 2017 shows that the final survival rate was at an average of 70% for the Novacq™-inclusive ponds and 51% for the control ponds, equating to an improvement in prawn survival of 37% over the control ponds.

Ridley CEO Tim Hart commented "While we were originally looking to this trial to obtain the data confirming the biomass growth potential of Novacq™ in prawns as witnessed in prior laboratory results, the benefits to the prawn farmer from a dramatically improved resistance to the challenge of viral/bacterial attacks and natural attrition are immense and, if replicated in Thailand, has the potential to be financially transformational for the global shrimp industry."

The first batches of Novacq™-inclusive diets are currently being manufactured at Ridley's joint venture feedmill in Thailand for use in commercial trials to commence in April 2017 at the Sureerath Prawn Farm adjacent to the Chanthaburi feedmill. With a shorter production cycle than in Australia, the trial is scheduled to conclude and data to be compiled and validated by no later than the end of the first quarter of the 2018 financial year. Follow up trials have commenced in Australia with appropriate stocking densities to accommodate a significant uplift in prawn survival rates.

Mr Hart continued "We have amended our trial protocols to allow for material improvements in survival rates and will be looking for comprehensive data not only on growth, but also for the two other streams of the value proposition for the Novacq™ product, being survival and nitrogen reduction. As soon as we have compiled and validated the results of the Thailand trials we will update the market accordingly."

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## **# Nitrogen reduction**

The potential exists for Novacq™ to positively contribute to a reduction in the prawn industry environmental load through a reduction in nitrogen discharge.

The majority of Australian farms are at, or close to, their maximum EPA compliance level with regard nitrogen discharge, therefore impeding further expansion and growth. Nitrogen is deposited into the prawn growing ponds as a component of the protein content within the prawn feed and also by way of animal waste.

If Novacq™-inclusive diets can demonstrate, at commercial scale, either a boost in production per unit of feed input and/or a reduction in the protein component in feed, then this will reduce the nitrogen footprint and enable prawn farmers to increase their biomass while remaining within EPA compliance constraints.

## **Novacq™ background Information**

Novacq™ is a natural prawn feed ingredient additive that is derived from a marine microbial process which involved over 10 years of research and development by Australia's CSIRO. Novacq™ has generated worldwide interest and Ridley has secured the exclusive rights to produce and market the additive worldwide, with the exception of China and Vietnam. India converts to an exclusive entitlement on 1 January 2018.

Novacq™ is a ground breaking novel feed ingredient that acts as a metabolic stimulant when included in prawn feed diets. It increases the prawn's food intake and permits the animal to utilise the feed more efficiently. Because of this, the prawn will grow faster (gain more weight and/or provide shorter harvest cycle times) and use less feed (improve feed conversion). Novacq™ can also be used to help replace scarce fishery resources such as fish meal in prawn diets, which is important for consumers, retailers and overall industry sustainability.

It has been Ridley's long-term goal to develop a range of sustainable prawn feeds which eliminates the dependency on ingredients sourced from wild caught fish, previously a mainstay of the prawn feed industry. At Ridley, this goal is achieved in part by using by-products from high quality fish which have been processed or canned for human consumption. However, the majority of the world's fish meal used by responsible feed manufacturers is made from sustainably managed wild caught whole fish which are trawled from the oceans, and this source is proving very costly for prawn farmers.

Fishmeal has more than doubled in value in recent times, which is a function of supply and demand. Aquaculture is growing and as such, so is the demand for fishmeal. Strict management of the wild fisheries stocks has resulted in a reduction of fishmeal availability. Novacq™ will greatly assist in overcoming consumer concerns, as farmers will no longer have to rely on meal produced from wild caught fish.

Impressive growth results achieved from Ridley prawn diets using Novacq™ were proven first in tank trials with CSIRO in Australia, and more recently in Thailand. The results are now being mirrored in full scale commercial production trials in Australia and shortly in Thailand.

**For further Novacq™ information please refer to:**

ABC Landline (April 2014) article at:

<http://www.abc.net.au/landline/content/2014/s3984247.htm>

CSIRO Novacq™ article (November 2015) at:

<http://www.csiro.au/en/Research/AF/Areas/Aquaculture/Better-feeds/Novacq-prawn-feed>

Ridley Corporation Limited informative video on its novel raw material ingredient Novacq™:

<http://www.ridley.com.au/investors/novacq>

22 January 2016 ASX release "Ridley secures site for domestic Novacq™ production."

29 January 2016 ASX release "Thailand feedmill investment advances Novacq™ strategy."

30 November 2016 ASX release "Novacq™ presentation - UBS Emerging Companies Conference."

16 January 2017 "Ridley secures Novacq™ production & harvesting technology."

21 March 2017 "Ridley releases Novacq™ information video."

27 March 2017 "Ridley & CSIRO enter Novacq™ Research Alliance and extend Licence."