

Fish silage to be commercialised

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A fish silage for feeding livestock is next in line to be commercialised from processed fish offal, says United Fisheries founder Kypros Kotzikas.

The Kotzikas family business has just released two liquid fish fertilisers and the fish silage is being researched at Lincoln University in a \$1.6 million project in a 50-50 partnership with Seafood Innovation.

Biological and organic liquid fish fertilisers under the Bio Marinus brand are made in an enzymatic hydrolysis process next to United Fisheries' Christchurch fish processing plant.

Much of the 600,000 tonnes of fish waste coming from processing one million tonnes of fish yearly had gone into energy-heavy fish meal and Kotzikas sees the liquid fish fertilisers and fish silage as a better way of using the waste.

He said more fish offal needed to be diverted into natural fertilisers for farming so fewer chemical fertilisers were used on pastures and crops.

Research had shown the liquid fish fertilisers would improve the health of farmland soils and help reduce leaching of nitrates as plants were encouraged to use more nitrogen when Bio Marinus was combined with urea.

He said initial sales to vineyards and farmers was positive and the next stage was to convince more farmers, particularly dairy farmers, that it was better to use a natural product than solve problems from chemical fertilisers with more chemicals.

"My ambition is to get the fish industry and the dairy industry to work together and help each other to create an environment that produces products that people can eat without getting harmed.

"We know that by putting Bio Marinus into the soil we create a healthy soil, healthy plants, healthy animals and, hopefully, healthy people."

All the offal, including the fish oil and 5 per cent to 10 per cent fish bones, is processed into the fertilisers and silage.

The liquid fish fertilisers are being used on farms in Canterbury, the West Coast, Central Otago and Southland.

The fertiliser products were shown to work best and absorb the most nitrogen at Springston and Greenpark dairy farms by Lincoln independent research company Land Research Services when 7.5 litres was applied on pastures with 18 kilograms of nitrogen to the hectare.

Calcium and magnesium content in the grass was 10 per cent higher than urea- only treatments.

Kotzikas said he had watched his late wife, Mary, dying from cancer the last five years and her belief in natural therapies had inspired him to pursue the natural products.

He said more benefits, yet to be confirmed by research, were being found by farmers such as the products helping plants cope with disease, livestock having fewer bloat problems and it acting as a frost deterrent at vineyards when coated on grapevines.

United Fisheries has the ability to produce 30 tonnes of fish waste a day.

Still under trial is the fish silage for feeding animals with two years remaining of a three-year research project at Lincoln University under Professor Jim Gibbs. At this stage the silage is likely to be fed to dairy cows mostly in milking sheds, and probably combined with palm kernel. The trials are expected to be extended soon to commercial farms.