LEFT ON THE SHELF?

A committed geneticist, the head of AgResearch Dr Tom Richardson talked about the dangers of leaving genetic modification projects on the shelf and shared what he thought was the primary industry's greatest challenge at a recent Rural Business Network meeting...

It's a weeknight, but the room is full because if research is at the core of success in the primary industry then the CEO of AgResearch is steering the helm.

"If we are going to leave genetic modification on the shelf we have to be very certain that the markets will reward us."

He's chosen his words carefully and the message is imparted tactfully.

"Right now we understand the markets very poorly given the size of the decisions we are making. As a country we have to have a confident understanding of what we have in those future markets. We have to make sure we're not going into a gunfight with a knife."

AgResearch, Dr Richardson goes on to say, has patented GM technologies it wants to protect, but risks losing the advantage the longer the discussion around the controversial topic is put off.

South America and Ireland are hovering in the background, he states.

"Even though we have a huge head start others are charging in. We are losing that head start, although ryegrass is an area in which New Zealand tends to lead the charge."

But the biggest challenge facing the primary sector is attracting talent, he says, with the Ministry of Primary Industries identifying New Zealand needs 50 000 more people employed in the industry by 2025.

While education is not AgResearch's key business, the Crown Research Institute participated in the much vaunted St Pauls Agribusiness curriculum launch. The resources have been so successful that the pilot is now being rolled out around the country to get teachers and students looking at opportunities in the wider industry.

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"We would love to get them turned on to agriculture. At the end of the day we need talented folks. It doesn't matter if they are into marketing, censors or computers as long as they don't sleepwalk their way past our sector in high school."

The agribusiness curriculum appears to be working with one male student who was going to work on the family farm at the end of secondary school, deciding to study agribusiness instead at university.

Dr Richardson also said the two science hubs at Massey and Lincoln universities that AgResearch was involved in, are part of a key strategy to create an environment that attracts talent and is internationally competitive.

The industry needed to be porous and move people around frequently which would help make careers attractive, he said.

"We need science talent to drive prosperity in New Zealand. As part of that we need to establish international linkages with centres of excellence. A lot of undergraduates overseas would welcome coming here. In addition, it provides us with opportunities to send people overseas to their labs."

WHO IS DR TOM RICHARDSON?

Dr Tom Richardson is the chief executive of AgResearch, New Zealand's largest Crown Research Institute. He has held executive roles in New Zealand and Australian science for the past 20 years. Prior to joining AgResearch, he was a scientist and then chief executive at the New Zealand Forestry Research Institute (Scion). He has had frequent assignments on advisory boards, external review panels and international science and trade delegations, including the NZ-US Joint Commission on Science and Technology Co-operation and the NZ-EU Joint Commission on Science and Technology Co-operation.

Dr Richardson has held numerous industry, science and education governance roles, which currently include Farmax Ltd; Grasslanz Technology Ltd; OVERSEER Limited; Science New Zealand; SIDDC (South Island Dairying Development Centre); Riddet Institute; and council member of Waiariki Bay of Plenty Polytechnic.

His science background is in genetics and he holds a Bachelor's degree in Biology from Bucknell University and a doctorate in Botany from Pennsylvania State University.

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The second biggest challenge facing research providers according to Dr Richardson, was how to pay for agri-enivronmental science as it was not easily monetised to the investor.

"So who pays for the science Healthy Rivers (Waikato's Regional Council water plan) wants to deliver? The biggest challenge is getting agricultural sector prosperity and monetised environmental science but we are not funding it the way we need too."

Re-iterating the importance of primary industry scientific research, Dr Richardson said in order for the Government to meet its Business Growth Agenda targets of doubling export earnings in order to reach 40 per cent of GDP by 2025, it would have to come from the primary sector.

"It essentially all comes from the primary sector and a disproportionate share comes from agriculture."

AgResearch would play a key role in that research as the largest of seven primary industry Crown Research Institutes. Currently 3500 scientists and technicians work to contribute growth to the primary industry with 650 scientists in AgResearch alone.

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With four main science campuses in Ruakura, Palmerston North, Invermay and Lincoln, AgResearch has a significant visible face. It looks set to expand that further with the institute's involvement in two university science hubs and the recent acquisition of a dairy farm near Invercargill, with DairyNZ.

AgResearch has contributed hugely to the economic landscape with their creation of ryegrass endophytes that benefited the economy by $190 million and the biological control of clover root weevil with wasps, which resulted in $200 million in savings.

Add to that the genetic work AgResearch has done with sheep particularly in 'muscling up' higher value cuts and the institute's contribution begins to tally up with around 800 projects completed every year.

However, it's censor technology that Dr Richardson thinks will be the biggest driver of the primary industry.

"I think we will talk about that more than we will genetic modification in the future."

With six billion devices connected around the planet and that number forecast to rise to 26 billion in three years' time, censors will transform modern agriculture.

"The cost of those censors is plummeting. While 15 per cent of New Zealand farms monitor soil moisture that could be 100 per cent in three years' time. This will change the way we do research and will cost pennies compared to the field experiments we do now."

And you can bet Dr Richardson will be front footing that change!