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## IMPACT 08 SEMINAR – AGRICULTURE

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ICTs have a wide-ranging application in New Zealand's rural sector and are key to unlocking greater farm productivity according to a trio of technology / rural sector experts who spoke at the third of seven Impact 08 seminars in mid-June.

The seminar was held at five universities nationwide via the high-speed Access Grid, and examined to what extent global positioning systems, RFID and rural broadband are transforming farming.

The first speaker was David Walker, dairy farm owner and rural market manager at Telecom's IT arm Gen-i. He maintains that Internet technologies, particularly rural broadband delivered via ADSL, satellite and wireless, can drive 'real productivity gains'. More and more farmers and rural dwellers want instantaneous connectivity and mobile technology also has an important role to play, he says. Technology can help the farming value chain immensely; benefiting everything from herd management, animal health and fertilizer placement.

The rural sector has always been innovative and Walker says we are entering an age where many emerging ICT applications will be driven by the farming sector. One such technology is radio frequency identification (RFID), an important part of the recently-announced National Animal Identification and Traceability (NAIT) initiative.

Colin Brown, the Managing Director of GPS & data mapping firm TracMap, followed with a talk on GPS tracking technology and its implications for farmers.

GPS tracking provides a host of productivity gains in respect of fertilizing pastureland, he says. It gives farmers the ability to drive wider and more precisely, with some systems accurate to within two centimeters.

"They can finish jobs in the dark and check how much pasture has been fertilized, an important piece of information in respect of adjusting application rates on the fly."

"You are able to avoid unintentional fertilizer overlap and, if there are different soil types, the ability to apply more fertilizer to suit the soil and crop yield potential.

"The technology also allows track and trace of products applied to pastures and crops; where it went and when. And it can show that you are farming in a sustainable manner."

Andrew Cooke from software firm Rezare Systems was the final speaker. He spoke briefly on the 'networked farm' concept.

He gave a potted history of farmers' use of technology – from the 1970s when they made use of rudimentary electronic recording systems through to the present day with increasing use of Internet-enabled applications. The 'next big leap' is extending the network out across the farm and the rural community, he says.

Cooke précised several projects he has worked on recently, including a Matamata dairy farm where a wireless network, walk-over weighing machine and Overseer – a nutrient monitoring package – were installed with great success. The Protrack farm automation system was also installed, with RFID tags, electronic tag readers and an automatic drafting unit.

He is presently working on a project looking at the use of RFID on sheep and cattle.

The next Impact 08 seminar – Identity - is being held on 21 July and will examine a range of identity and privacy issues as they apply to ICT innovation.