Grasslands puna chicory: research, technology transfer and seed yields

J. S. Rowarth¹, M. P. Rolston, W. J. Archie and B. R. Guy²

AgResearch Grasslands, Private Bag, Lincoln, New Zealand.

Present address: Plant Science Department, Lincoln University, Lincoln, New Zealand.

Challenge Seeds, PO Box 939, Christchurch, New Zealand.

Grasslands Puna chicory (Cichorium intybus L.) is a perennial, tap-rooted herb grown in New Zealand for forage, either alone or as part of a herbal ley. Puna chicory is extremely palatable and has high concentrations of many important minerals including trace elements. Growth rates recorded from young stock grazing Puna chicory equal that achievable on clover or lucerne,

Puna chicory has been harvested for seed in New Zealand for seven years. During that time average seed yields have increased from 200 kg/ha to 470 kg/ha and top commercial yields have increased from 340 kg/ha in 1989 to 700 kg/ha in 1990 and over 800 kg/ha in 1991. The rapid increase in commercial yields is a result of both research and a technology transfer programme (partially Government funded) that began in 1990.

This poster highlights the major research findings for seed production trials with Grasslands Puna chicory. Trials have been done in both the North and South Islands of New Zealand and research has been on-going since 1984. Results are presented for trials investigating establishment of seed crops, weed control, timing of closing, nitrogen and harvesting.

The technology transfer programme has enabled Grasslands scientists to monitor and supervise all commercial seed crops of Puna chicory in conjunction with seed company representatives. Research findings have been transferred directly to Puna seed producers by way of newsletters and growers meetings plus individual farmer contact and management recommendations. The top growers have now been brought up to the 'state of play' in scientific knowledge of Puna chicory seed production. An additional advantage arising from the programme is that regular contact with the farming community has enabled scientists to identify clearly the areas where more research is necessary.