

GETTING MORE FROM MANUKA

DEVELOPING MANUKA PLANTATIONS



Manuka
Bioactives

ABOUT MANUKA BIOACTIVES

- ✘ 100% Maori owned company representing individuals, iwi and Maori land trusts
- ✘ Shareholder group has long term experience in the honey industry having started one of the first Maori beekeeping companies; Whakaari Beekeepers.
- ✘ Main focus is developing plantation approach to growing manuka and harvesting the honey and oil produced.

WHAT MANUKA BIOACTIVES IS DOING

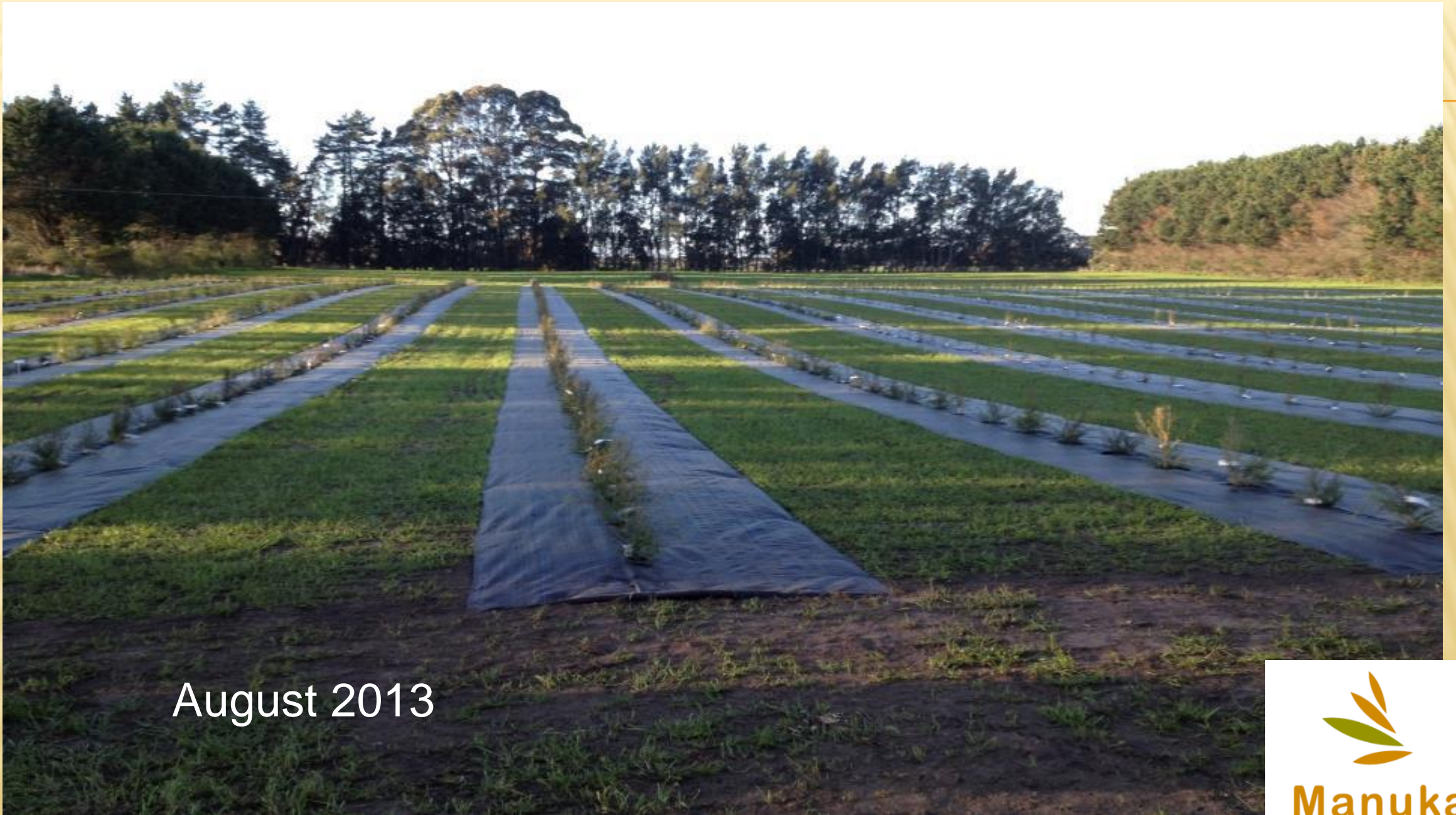
- × Plantations
- × Manuka Oil/Extract
- × Manuka Honey

VIDEO LINK

http://youtu.be/0_SoLtqvGTU

PLANTATIONS

- ✘ Established intensive plantation trial in Whakatane in August 2013 on .75 hectare of arable land (replaced maize). Planted 1500 trees representing 26 different strains of medium and high UMF producing plants
- ✘ Planted additional 1.25 hectares at the site in early August 2014 bringing total trees to approx. 8,000 trees (approx. 4,000 trees per hectare)
- ✘ Trees planted in hedgerow and irrigated to enhance growth and reduce time to maturity (~50cm at planting to ~1.5 - 1.8m after 1 year)
- ✘ Hedgerow model has shown results of a greater surface area of flowers per tree and therefore greater production per hectare (target 2.5m height)
- ✘ A second site was developed in late August 2014 at Lake Tarawera on 3 – 4 hectares with 8000 trees planted
- ✘ Additional 60,000 trees to be planted in 2015



August 2013



October 2013





September 2013



April 2014



Checking brood box
October 2014
Hive 1 of 4



September 2014 – 1 year in the ground

OPPORTUNITIES

- ✘ Potential to develop single source honey (medical applications)
- ✘ Increased per hectare production to compete with maize and other cropping options – not just marginal land
- ✘ Mixed oil/extract and honey production (subject to identifying appropriate strains)
- ✘ Tissue culturing to breed ‘true’ strains (including lemon balm scented tree – PVR pending)

MANUKA EXTRACT

- ✘ Partnered with Callaghan Innovation (NZ) for scientific research/analysis
- ✘ Use supercritical extraction method (only NZ company extracting using this process)
- ✘ Many of the same characteristics of oil but broader spectrum of activity compared to manuka oil (eg high triketone levels not required for antibacterial activity)
- ✘ Antibacterial, antioxidant and UV absorption



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