McCain Growers
Unincorporated Society
MGUS
MGUS invest in R&D and technology for the benefit of the potato industry and sustainable agriculture
Potato seed store currently being built by McCain growers, shows the great investment into the potato industry.
McCain Process Potato Field Distribution over different Land Use Classes
The growers irrigation volume was less than the recommendation the potato calculator gave.

This inadequate irrigation resulted in an estimated 23 T/ha yield loss.

Potato calculator was a prediction model for N and water.

Results from: PFR SPTS No. 11950
Potato yield gap 2014-15
Potato Stores at McCain Foods Timaru

- Good quality potatoes are required for storage.

- Over watering and incorrect fertility can result in Rotten Potatoes which spread through the store.

- Good quality Potatoes can be stored for 9 months, to allow the factory to run through the year.
Soil Moisture checks - field assessment, soil moisture probes. To determine if irrigation is needed, MGUS is investing in probes that measure NPK through the soil.
Figure 19. Averaged “plant yield” from targeted areas in 11 potato crops, categorised as having: low stem canker incidence (RSC), no Spongospora (root galls) and no soil compaction (Low R, no S, no C); low stem canker incidence, with Spongospora (root galls) and soil compaction both present (Low R + S + C); high stem canker incidence, no Spongospora (root galls) and no soil compaction (High R, no S, no C); or high stem canker incidence, with Spongospora (root galls) and soil compaction both present (High R + S + C).
Healthy stems
- better water uptake
- increased nutrient uptake
- healthy plants
- higher yields

Diseased stems
- less water uptake
- decreased nutrient uptake
- plants die early
- decreased yields