

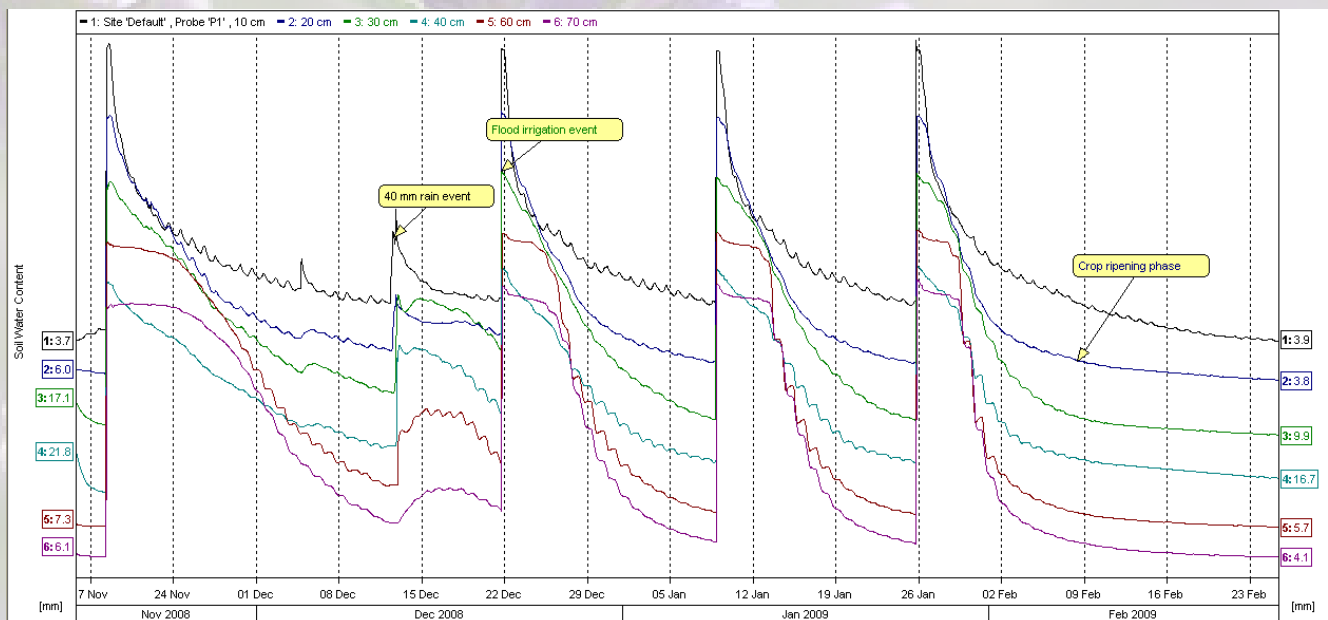
Improving seed production in lucerne (alfalfa)

Lucerne (alfalfa) seed production is optimised by the ability to dry down the soil profile at critical growth stages. Higher seed yields are obtained where the soil moisture can be allowed to dry down to a point above the wilting point before further irrigation is applied.

Such controlled management of soil moisture content through the profile is only successfully achieved through ongoing measurement. Sentek's EnviroSCAN soil moisture probes provide high quality continually logged data that records crop water use through the soil profile. Information can be collected via the Sentek PLUS data retrieval system and viewed on the internet or downloaded into the Sentek IrriMAX irrigation management software. This allows lucerne growers to view their data and plan their irrigation schedule with confidence.

“Irrigation of lucerne for seed production is enhanced by the quality of data created by continuous soil moisture loggers and the IrriMAX software.”

James De Barro



Above: The high resolution of EnviroSCAN sensors and the display capabilities of IrriMAX combine to allow precision management above the onset of stress. This optimizes seed yield.

A dry soil profile enhances flower pollination by honey bees and other pollinators, by making the lucerne flowers more easily “tripped” by foraging pollinators. Being a perennial pasture species with a tap root, the lucerne plant is able to extract soil water from 40-100 cm or deeper depending on the soil type. EnviroSCAN probes enable lucerne growers to measure the soil water content at multiple depths within the same profile. Flexibility in probe length and sensor placement enables precise measurement of soil conditions at each site.

Using flood, pivot or subsurface irrigation systems, accurate strategies can be developed, on any soil type, to time the irrigation to suit the crop needs for growth and seed set.



The ease of data access with the Sentek systems has created an excellent forum to assist lucerne irrigators in all aspects of crop water use and irrigation scheduling.