

HAC DAIRY FARM - PASTURES

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The role of pastures in the HAC dairy farm system is to provide the dairy herd with sufficient feed intake to produce 17-18 litres of milk per cow per day. This ration must be produced at the least possible cost per litre. Our dairy produces quota (60% of production) and surplus milk. The low level of quota held by the college is the major limiting factor in our farming enterprise.

As milk is produced on a 365 day basis our pastures are required to produce feed at the rate of 14500 MJ ME per day. To achieve this we have 70 ha under irrigation (spray). Summer pastures are based on kikuyu and some broadleaf paspalum. These are sod sown (Conner Shea tine seeder with Baker boots) in the Autumn each year with Tetila or Concord ryegrass. Next Autumn, Shaftal clover and Tetila or Concord ryegrass is to be sown into the Summer pastures. Lucerne is a major supplier of feed to the dairy herd with the older stands oversown with Ellett or Nui ryegrass, white clover and demeter fescue as the lucerne stand thins out. Kikuyu will be sown into more irrigated paddocks over the next 2-3 years to provide a high producing hardy pasture capable of withstanding the grazing pressure and weed competition that temperate pasture species cannot cope with. Lucerne is managed to provide hay throughout the summer period, haylage in the Spring and greenchop feed in the Autumn and Winter period. Because of low quota level and high labour costs we are looking for cash income from the hay producing ability of our lucerne stands. Another 10 hectares will be sown to lucerne (Trifecta) in August 1986 to achieve this goal for 1986/87.

To become self sufficient in grain requirements, oats and barley have been sown (irrigation and dryland) to give winter greenchop and grain production. Coolabah and Cooba oat varieties have been sown on both cultivated and direct drilled paddocks. Malebo barley has been sown under irrigation to provide green chop and grain.

Summer cropping revolves around corn for green chop, haylage and grain production. Seven hectares of corn is used to fill the Harvestore in March each year and this provides the bulk of the milking herd's energy requirements over the Winter period. The Harvestore capacity is 130 tonne DM. Grain production from corn provides cash income for the enterprise. Sorghum may be planted this Summer for silage and/or grain production. Millets and grazing sorghums have been grown in the past to fill green feed needs but with increased areas under paspalum or kikuyu we envisage not requiring these crops.

Fodder conservation is carried out throughout the year with haylage production from corn in March and lucerne/ryegrass in the early spring. Hay production from lucerne or ryegrass pasture takes place in October, November and December. Silage has not been made for many years but sorghum or corn may be grown for long term silage storage in 1987.

Main problem areas (that need monitoring) associated with feed production on HAC dairy are: (i) weed competition (mainly crab grass); (ii) grazing pressure (plant damage, plant loss - pulling out, pugging, wastage); (iii) irrigation (frequency, infiltration, drainage); (iv) machinery for harvesting (old, poorly maintained) and (v) minimising total feed costs.

Fertilizer usage has been low over the past few years (\$4000/yr) and we may find that very high levels of fertilizer will have to be used in the next few years. Dependence on Nitrogen, which is our major fertilizer cost, will be reduced by using Shaftal and Berseen clover for the bulk of the winter feed and growing corn for haylage on old lucerne paddocks. Pastures are normally sown with Mo Super or Lime Super and topdressed with Pasture 13 in the Autumn.