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Good organic dairy farmer Ian Buckingham at Pokeno south of Auckland, was feeding two year old Friesian bulls 4 kg dry matter of poplars with 4 to 6 kg of pasture per day. No weights are available but the trial was going nicely until the summer got really dry and he fed all his animals 80 to 90% poplar leaves and twigs less than 5 mm in diameter.

I had never previously fed branches of poplar, willow or paulownia to cows, but in this year's drought we dropped even big branches for the milking cows to eat, without chipping them, which gave us just over two weeks of feed. The cows loved them and kept producing milk. I have always been surprised in the past about how big some of the pieces of fallen or trimmed branches the cows would eat, producing lots of saliva at the same time, provided they got enough salt to do so.

As far as feed values and health values go, there is information from different sources on this. We try not to take too much of an analytical approach, but do more like my grandfather did which was to notice how well the cows looked after being in the back block where they had access to willows and other varieties of food.

Forage Trees and Crops for Arid and Steep Areas

Are there trees or plants one can grow in some pastures and steep hills in sufficient numbers to provide feed during severe droughts?

Suggested ones to try are shown in the free book 'Tree Crops: A permanent agriculture, by J. Russell Smith.' Google for it. He was a professor at Columbia University and then the University of Pennsylvania. It is a 300 page heavy going book which need not all be read, but you can search for Trees, Forage Crops, etc.

Stock don't eat fodder trees unless hungry. Meanwhile the trees provide shade and shelter and lift the hot summer winds. When some of Australia and some of Africa were covered thinly in trees they didn't suffer the droughts that they now get.

Fallen leaves from trees are of reasonable feed value when just fallen, but then decrease in feed value. Zinc levels can be much higher than pastures grown on the same soils.

If planting paddocks of trees for drought feeding the numbers of trees can be high and then as the trees get bigger some can be cut out. If grazing of pasture is also to occur, fewer trees per hectare should be planted. Numbers depend on the degree of drought feed needed, soil fertility and rainfall.

Don't cut off branches while up a ladder with animals in the paddock, because it can be knocked over by animals milling around to eat the branches.

The feed values will vary because of the age of leaves and amount of branches included, but when severe droughts occur, exact feed value is of less concern.

Vaughan Jones, ONZM Queen's honour 2013, for services to the farming industry.

Dairying 99% Honours 1948. Waikato Most Improved Dairy Farm Award 1959. M.Mkt.I.

International Agricultural Consultant, Journalist, Author of GrazingInfo eBook of 260 chapters. Currently Managing Director of GrazingInfo Ltd.