

DOHNE MERINOS PROVIDE STABILITY TO THE ECONOMY OF AGRICULTURAL ENTERPRISES UNDER IRRIGATION.

(Henri Londt – Dohne Merino Breed Society SA)

Diversification is an efficient strategy to reduce the risk factor in agriculture. This article shows how gross margins generated on irrigated pastures and crop production enterprises is boosted by the addition of Dohne Merinos as a livestock enterprise.

Leon Trollip and his son Leon Jnr. farm on a 100 hectare irrigation property called Sanddraai in the Luckhof district. Water is supplied from the Van der Kloof irrigation scheme and popcorn and wheat are cropped whilst oats and lucerne are produced as pastures. Popcorn is the main cash crop enterprise whilst 600 Dohne Merino ewes and followers graze mainly on lucerne pastures between October and April. During the rest of the year they run on maize stover and oats pastures and lambs are finished for the market on complete feed rations in a feedlot on the farm.

Matings and lambing times:

The Sanddraai Dohne Merinos are run on a breeding system of three lambings in 24 months. This means that 300 of the 600 Dohne ewes are being mated every 4 months. The first groups lamb during March and July, the second two groups during November and March and the third groups during July and November. These mating and lambing programmes ensure that each ewe in the 600-strong flock is mated three times in 24 months. Rams are used at a rate of 5% in a 34 day mating period to cover two cycles per ewe.

Feeding and management:

A comprehensive vaccination and drenching programme is maintained to ensure optimum health of the flock. Ewes receive strategic feeding three weeks prior to mating at which time Multimin is administered. Ewes lamb between October and April on lucerne pastures and ewes with multiples are enclosed in pens for a period of ten days after which they go back onto lucerne pastures. Lambs receive creep feed from ten days of age. Ewes lambing between May and September graze on maize stover and go to oats pastures three weeks before lambing. Sheep are shorn every eight months and lambs are shorn prior to marketing.

Sheep receive an all year round ad lib lick (also when they run on lucerne pastures) comprising the following ingredients: 1,000kg maize meal, 300kg salt, 3 kg sulphur and a calcium source of 1.5kg. Lucerne pastures are grazed from flowering stage and allowed to be grazed short before sheep are moved onto fresh pastures. The consistent availability of this lick as well as regular irrigation of lucerne pastures to prevent it from wilting, limits annual loss of sheep due to prussic acid poisoning to only 0,35%.

Production:

Conceptions of 86% and lambing percentages of 165% (ewes scanned in lamb) are achieved with a mortality rate until weaning of 10% to 15%. Lambs are weaned at 14 weeks of age when

whether lambs and cull ewe lambs go to the feedlot to be finished off for the market on complete feed rations comprising grain and hay produced at Sanddraai. Lambs are marketed at live weights varying between 47kg and 52kg and the dressing-out percentage varies from 47 to 50. Sheep are marketed through the Hopetown abattoir and the current price for lamb carcasses is R39.00 per kg resulting in a gross income of R858 per lamb. The wool/meat income ratio of the flock is 20% wool and 80% meat which is in line with the results shown by study groups of woolled sheepflocks producing top gross margins elsewhere in the country.

Ram cost per lamb produced:

The Trollips spend on average R8,000 per ram on Dohne ram purchases and use 15 rams in a multi mating system comprising six matings in 24 months. The total cost for 15 rams comes to R120,000. These rams are used for approximately four years before they are replaced. Calculated according to conceptions and weaning percentages as indicated, the flock produces approximately 1,150 lambs per annum. If we assume that every ram produces 77 lambs per year (according to matings and weaning results described) one ram produces approximately 308 lambs over a period of four years. The ram purchase cost calculated as a percentage of gross income per lamb yielded over this period comes to $(R8,000 \div 308)$ R26.00, or 3 % considering that all lambs realise a gross value of R858 per lamb. The cost of R26 per lamb will be further reduced should the wool component (which has been omitted in this particular equation) be brought into the calculation. The cost to purchase rams calculated as a percentage of lamb income is relatively low compared to other input costs and enables the Trollips to purchase rams from the top 10% offered on sales. This affords them the opportunity to acquire rams with optimum production figures which are required to operate an efficient meat/wool production system.

Income per ewe and per hectare:

The gross farm income (GFI) per ewe is R1,775 per year which translates to a GFI of R26 624/ha. In order to differentiate between the net performance of the Dohne flock enterprises on Sanddraai (interest financial and other enterprises excluded) their book keeper allocates the operating cost for sheep as follows: Water, electricity, fertiliser, seed, veterinary medicine, feed, labour, packaging and shearing costs come to R550.84 per ewe which reflects a net operating profit of R1,224.16 per ewe, or a net operating profit of R18 237,60/ha. Due to the fact that sheep are also grazing on areas of the farm where cash crops and pastures are being grown the allocation of sheep on pastures comes to 15 ewes per hectare. This allocation could differ from one mixed farming enterprise to another.

“In this production system Dohne Merinos generate a net operating profit per hectare equal to five times that of wheat and maize under irrigation (interest on capital excluded).”

The outstanding and consistent financial performance of the sheep enterprise offers the Trollips a highly lucrative option in terms of diversification to limit the risk associated with the production of cash crops. Leon puts it into perspective by pointing out that at the current maize price of R1 100/t and a yield of 10t/ha under irrigation would yield a net farming profit of R3 600/ha. Wheat production under irrigation with a yield of 6,5t/ha sold at the current price of

R2,200/t would yield the same net farming income. Low margins of this nature increase the risk of major losses when input costs and commodity prices show big variations during the production period. The Dohne Merino enterprise by comparison yields a net income of R18,237.60/ha, (interest on capital excluded).

Farmers producing cash crops under irrigation can utilise the Dohne Merino with great success on lucerne pastures by diversifying and limiting input costs and increase net farming income. Leon lists the low input cost as a result of the non-selective grazing habits of the Dohne combined with its ability to convert inferior fodder into energy.

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By introducing Dohne Merinos as a woolled sheep enterprise Leon Trollip reduces the risk associated with cash crop enterprises at Sanddraai.



Through good management and the provision of an ad lib lick all year round mortalities due to prussic acid poisoning are limited to 0.35%.

Leon Trollip (left) with his son Leon Jnr who farms with him at Sanddraai.

