



GOATS GRAZING ON CHICORY

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The Chicory Plant

Chicory is a perennial herb, which has proven to be an excellent source of grazing feed for small stock all year round.

Establishment

Chicory is best adapted to high rainfall areas (>600mm). It is summer active and responds well to spring, summer and autumn rain. Chicory also does well under irrigation at 25mm/week.

Chicory establishes and grows in wide range of soil types; but avoid heavy clays where drainage is poor. Good water-holding soils that are well-drained and of high to medium fertility are ideal.

Land preparation

Seedbed must well prepare with soft, friable, weed free seedbed. It is important to control broadleaves before sowing.

Planting method

Chicory can be broadcasted into a cultivated seedbed, or drilled direct. Use roller after planting to provide good contact with soil.

Seeding rate

The seeding rate is 3 kg/ha, if it is not planted with other pastures. In a pasture mix, use 1-2 kg/ha of chicory.

Fertilization

Soil samples needs to be taken before planting so as to know the fertility status of the soil. Soil samples can be submitted to Cedara fertility laboratory. They advise on the amount of fertilizer to be applied. It should be noted that, chicory is not a legume; therefore

nitrogenous fertilizer needs to be applied strategically. The amount of Nitrogen applied will determine the amount of herbage produced per hectare. If 120 kg N is applied, one can expect to get a yield of 5 tons per hectare; 150 kg N gives a yield of 6 ton/ha and 200kg N provides 8 tons/ha.



Figure 1: Goats grazing on chicory

Animal Production

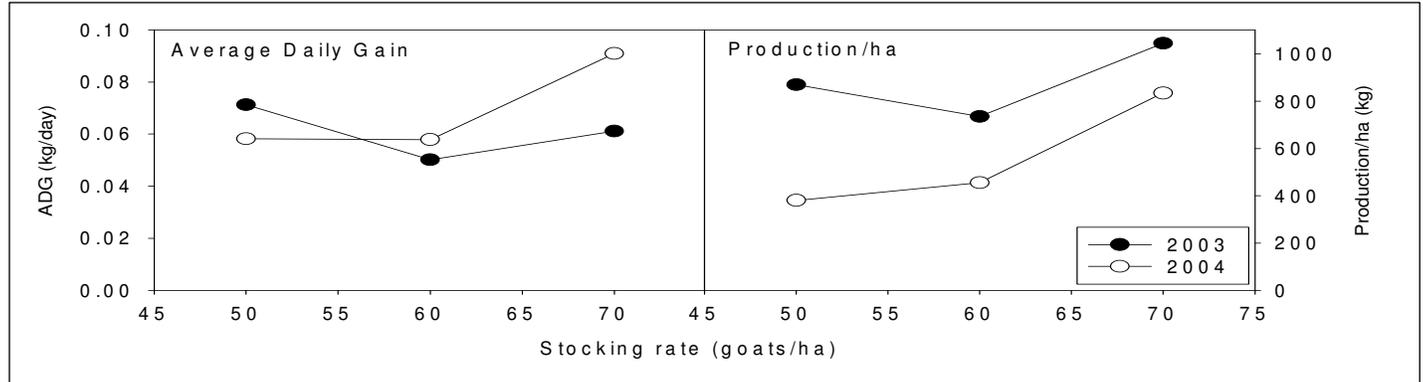
For the past seven years, the performance of indigenous goats under intensive cultivated pasture management systems has been evaluated, with a view to improving goat production in KwaZulu-Natal. One of the forage species evaluated was forage chicory (cv. Lacerta). Indigenous maiden ewes were stocked at three unreplicated stocking rates (50, 60 and 70 goats per hectare), from 5 June 2003 to 5 February 2004 (244 days), and from 23 September 2004 to 1 February 2005 (131 days). Performance varied considerably between treatments. In 2003, the ADG was significantly greater at the low stocking rate (0.071kg/day) than at the medium (0.060kg/day) and high stocking rate (0.061kg/day). Since the 2003

season was much longer than the 2004 season, the years were compared by only considering the season from September 2003 to February 2004 (an equivalent timescale to the 2004 season). There was little difference between seasons in production per hectare: 2003 ranged from 868.80 kg/ha to 1043.40 kg/ha at high stocking rate and in 2004 production rate per ha

ranged from 381.17 kg/ha to 455.13 kg/ha to 833.63 kg/ha, but again the medium stocking rate performed more poorly than the other two stocking rates.

Chicory has a tendency of growing into stems which are not well grazed by animals. The animals on the trial were only dewormed once. There were few cases of foot rot and feet abscesses. The trial is still continuing.

Table 1: Average daily gain & production per ha (kg)



Discussion and conclusion

- ⇒ During 2003 season, maiden does stayed on chicory 244 days and performed well
- ⇒ During 2004 season, the trial was stopped earlier due to stock theft
- ⇒ Chicory is a high potential forage crop that can be utilized throughout the year
- ⇒ During both seasons, animals were dosed only once with anthelmintics
- ⇒ Further investigation is required on its potential anthelmintic effect
- ⇒ If stocking rate is low, chicory becomes stemmy and difficult to graze.

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Figure 2: Forage chicory