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Spotlight on Agriculture

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DEMO CAMPS

for a pasture survey in the southern communal areas

BACKGROUND

Farmers in the southern communal areas of Namibia raised their concern that the reproduction, growth and health of their livestock were poor. Through discussions between the farmers and the Farming Systems Research and Extension team of the Hardap Region, and through observations, a number of causes were identified for this particular problem. The lack of vegetation, poor veld condition and the seasonal shortage of fodder were identified as the most hampering factors in livestock production in this Region.

In commercial farming management the implementation of rotation and the resting of veld is a common practice, but this is not the situation in communal farm management. Some problems associated with this lack of pasture management, were identified:

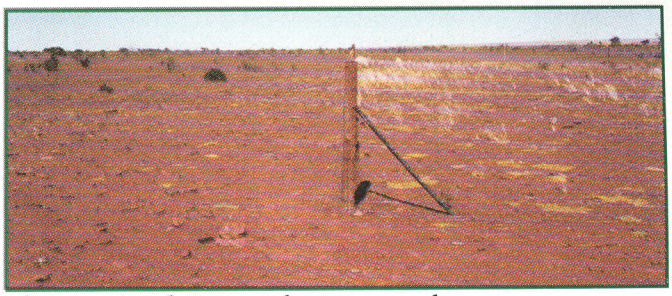
- Farmers do not acknowledge the importance of rangeland management.
- There is a lack of knowledge of the potential of the rangeland in these areas.

Seven demonstration camps were established in the Hardap Region and the information gathered from these camps will be used to assist farmers with finding solutions for better pasture management.

OBJECTIVES

These demonstration camps will be used to:

- Monitor the recovery of the veld under controlled circumstances.
- Identify plant species that occur naturally in these areas.
- Measure the rainfall for the Hardap Region.
- Disseminate information through the training of farmers.



A comparison between a demo camp and an open access area.

METHOD

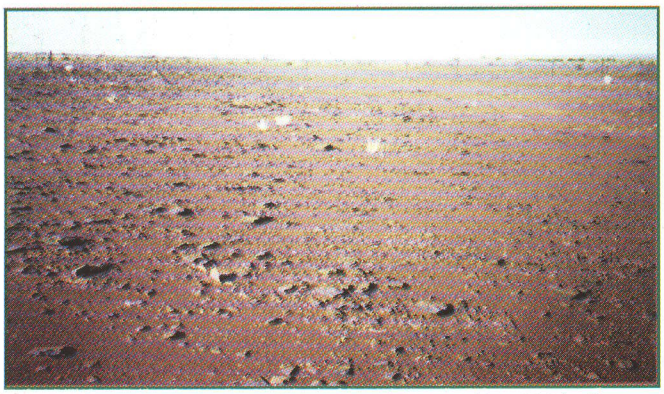
Four unrelated sites with seven camps were identified for annual evaluation (during June to August) over a period of ten years or longer. Livestock are not permitted in the camps.

The following data is collected:

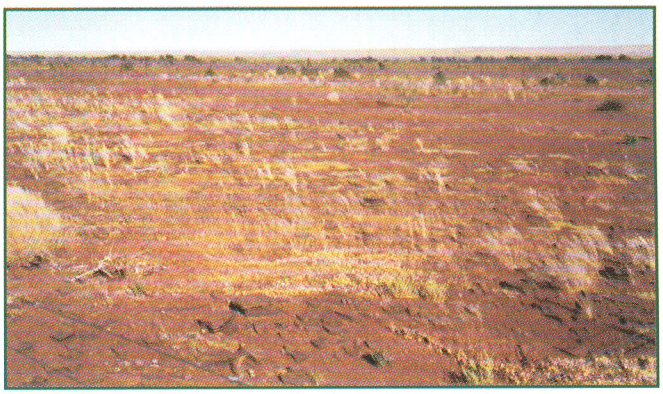
- Ground cover - both basal and canopy covers are determined.
- Botanical composition - plant species are identified with a veld condition point survey - 300 points per transect, with a radius of 50 cm at each point.
- Bio-mass - determined by cutting 40 quadrants in each of the seven camps on the four sites, always in the same direction.
- Pictures of the camps - taken at fixed marked spots to be able to compare the years.
- Rainfall measurements - recorded throughout the year, starting from 1 July to 30 June.
- Any other interesting observations are also recorded.

DEMO CAMPS

PROGRESS OVER THE FIRST FOUR YEARS



Hatzium I in 1999: Nearly no vegetation (See Table 1).

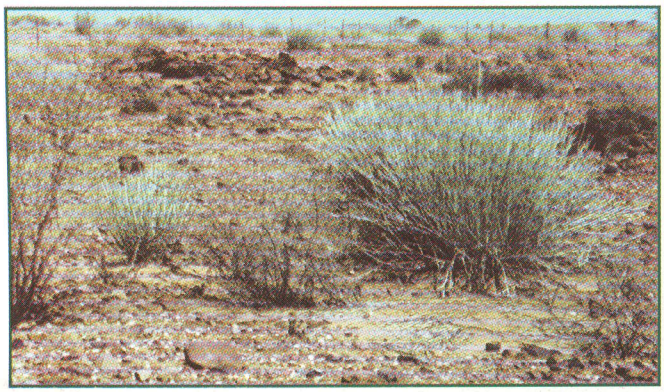


Hatzuim I in 2001: Annual and perennial grasses were identified.

Table 1. Data for two of the seven camps from 1998 to 2001.

Site	**Hatzium I**				**Gründorn**			
Year	**1998**	**1999**	**2000**	**2001**	**1998**	**1999**	**2000**	**2001**
Number of bare patches	286	214	217	120	238	75	13	13
Number of covered patches	14	86	83	180	62	225	287	287
Total number of points	300	300	300	300	300	300	300	300
Rainfall (mm / year)	*	*	208	**	*	*	243	**
Botanical composition (Number of plants per 300 points)								
Poisonous plants	0	5	15	16	0	0	0	0
Herbs	1	3	0	0	2	0	0	0
Annual grasses	0	54	15	62	0	13	134	23
Perennial grasses	1	13	33	81	28	280	133	225
Shrubs	10	9	17	18	27	27	18	28
Bushes	2	2	3	3	5	5	2	4

* No measurements ** Data still outstanding



Gründorn in 1998: Bushes and shrubs were identified. A number of Stipagrostis anomala tufts were present, with no annual grasses.

Gründorn in 2000: Rainfall of 243 mm for the year. An excellent re-growth of plants. Grass bio-mass 245 kg/ha.

At Hatzium I, both annual and perennial grasses increased over the four-year period. During that time, the veld was rested (excluded from grazing).

The recovery of the veld in both these demonstration camps (see pictures) is a result of a purposeful resting period for seedling establishment and growth. In communal areas, this can be achieved through herding of livestock in open access areas. Resting of veld should be for specific reasons based on plant requirements.

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