

## Impact of predation on beef cattle

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**Research focus area:** Predation management

### Full Title of the project

**Estimating the impact of predation on the beef cattle industry in South Africa**

### Aims of the project

- To conduct a structured survey by telephone among about 1 500 beef cattle farmers in all nine (9) provinces to determine the biological and financial impact of predation on the beef cattle industry in South Africa.
- To inform authorities and producer organizations on the extent of predation.
- To create the basis for a focused and coordinated predation management and research programme to reduce (mitigate) the negative impact of predation.

## Executive summary

The study focussed on predation losses of beef cattle in South Africa. A sample of 1 500 beef cattle farmers was used; proportionally divided between provinces in relation to the number of cattle in provinces as percentage of the national beef cattle herd. The Western Cape and Gauteng did not want to participate in the study; the structured questionnaire was used to conduct a survey by telephone with the remaining sample size of 1 353 cattle farmers in seven (7) provinces.

Most appropriate methods available to farmers to manage predation and mitigate the impact of predation (non-lethal and lethal) on cattle were used in different combinations by respondents. However, none of these methods when used individually, or when a few were used in combination, proved to be a one-for-all solution at the provincial level. At the district level, there were indications that some methods were more effective in reducing the impact of predation.

The total direct cost (animals lost to predation) and indirect cost (associated with the prevention of predation) of predation on cattle in the provinces and South Africa was: Western Cape - NA; Northern Cape - R19 943 079; Free State - R117 600 433; Eastern Cape - R4 827 237; Kwazulu-Natal - R66 027 879; Mpumalanga - R43 938 376; Limpopo - R46 486 017; Gauteng - NA; North West - R84 319 786; South Africa - R383 142 807.

The conclusions of Van Niekerk (2010) were confirmed by this study, namely

- (1) factors that affect the occurrence of predation and
- (2) factors that affect the level of predation, are not the same.

The study did not provide definitive answers to predation, but it helps to understand predation better with a view to develop appropriate management solutions.

The scale of predation losses to sheep, goats and beef cattle can hardly be ignored any longer. A third study by the UFS will commence soon to estimate the impact of predation on the wildlife ranching sector.

Currently the approach to control predation is fragmented and uncoordinated. The alarming scale and impact of predation on livestock in South Africa calls for a focused and coordinated predation management and research programme to reduce (mitigate) the negative impact of predation.

## Comments

This study by Badenhorst (2014) adds to the baseline data which were set for small livestock by Van Niekerk (2010). Another study will commence soon and focus on the impact of predation on the wildlife industry.

Ideally these studies should be repeated within a period of three (3) to five (5) years to establish trends in predation. Additional studies may complement the baseline information by focusing in greater detail on smaller geographical areas.

## Articles

Van Niekerk, H.N., 2010. The cost of predation on small livestock in South Africa by medium-sized predators. M.Sc. Agric. dissertation, University of the Free State, Bloemfontein, South Africa.

Badenhorst, C.G., 2014 (in press). The economic cost of large stock predation in the North West Province. M.Sc. Agric. dissertation, University of the Free State, Bloemfontein, South Africa..