

# Drug delivery system of trypanocides in Eastern Province of Zambia

Delespau, V.

Assistance to the Veterinary Services of Zambia Project, Eastern Province, Chipata, Zambia.

## Introduction

Trypanosomosis is an acute economical constraint for cattle breeding in Eastern Province of Zambia. The economical situation in this province is very difficult. The main resources are provided by agriculture and cattle breeding. Albeit some fertilizers are bought for crop production, cattle breeding are a zero input system. Prophylaxis is not a common habit and cattle are treated when there is obviously no other solution to avoid death. The high pressure of trypanosomosis (Sinyangwe *et al.*, 1999), the slow evolution of the disease and the obvious and impressive emaciation of chronically infected cattle are probably the reasons for the high demand in trypanocidal drugs.

A drug distribution network in Eastern Province was desperately missing; therefore a Drug Delivery System (DDS) was initiated in 1990.

## History

Before the start of the DDS, the delivery of trypanocidal drugs was very irregular at the Veterinary Services level, the prices were highly unstable and drugs not available in remote areas of the Province. The DDS made drugs available at a fair price to the farmers. The sales were channelled through the Veterinary Services and the Assistance to the Veterinary Services of Zambia project (ASVEZA) dealt with the logistical organization of buying drugs and monitoring sales. The DDS was implemented in 1990 and achieved full cost recovery in 1993. Sales decreased in 93 just after the implementation of the full cost recovery and then increased for four years, i.e. till 1997 (Elyn, 1997). Between 1997 and 1999, the private sector increased the drug sales activities, whereas there was a slow decrease of sales through the DDS. The market created by the DDS made this possible.

## Price calculation

The prices at farmers level included all costs (transport, salaries, stationery, inflation buffer...) (see fig 1) and the money collected was immediately converted in US\$ on a foreign currency account.

The maximum potential of the DDS was achieved in 1997 with a turn over of more than 45,000 doses/year of Berenil and 14,000 doses/year of Samorin.

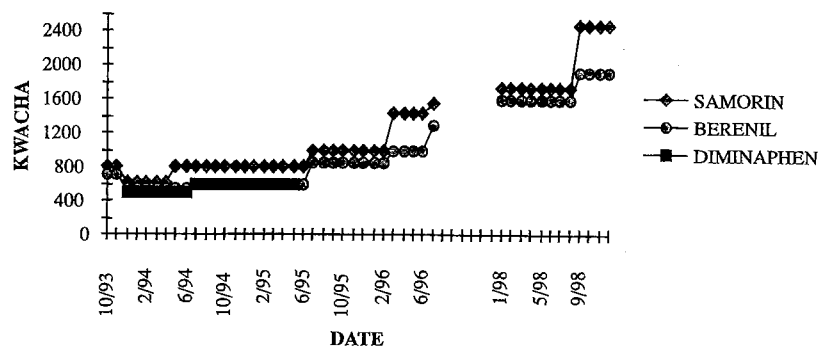


Figure 1. Evolution of the selling price per dose of trypanocides in Zambia (1 US\$ = 2,700 Kwachas).

In 98/99 efforts were focused on the privatisation and decentralization of the DDS allowing Veterinary Assistants to sell drugs as private sellers. During this period the private sector extended a lot and allowed a better distribution of the drugs in the main towns of the Province. The prices of the DDS were adjusted on those in the private sector to avoid unfair competition.

## Difficulties

Some Veterinary Assistants claimed extra charges to the farmers to inject drugs, which is illegal for a civil servant. This problem was not really common but gave a wrong idea of the aim of the DDS to some farmers. Money collected from the farmers was sometimes lost or misused by the Veterinary Assistants and thefts of drugs occurred.

## Conclusions

It is now generally agreed that it is not the task of the public sector to sell drugs. The role of the veterinary employees of the public sector should be restricted to advice, quality control of drugs and monitoring of the sales of the

private sector. The aims of the DDS have been achieved. It was an economically viable system (Fig. 2) and a market has been created allowing the private sector to extend.

ASVEZA is fading out to allow the private sector to take over the complete drug distribution in Eastern Province. The DDS is a good example of a transition structure which albeit sustainable in a project structure has to disappear when private successful initiatives of drug marketing are appearing.

The high drug turn over in 1997 showed very well that there was a real demand for drugs but that offer was not sufficient to ensure a correct treatment of the sick cattle of the province.

## References

- Delespau, V. (1999) Annual Report ASVEZA-East.
- Elyn, R. (1997) Annual Report ASVEZA-East.
- Sinyangwe, L.N. *et al.* (1999) Trypanocidal Drug Resistance in the Eastern Province in Zambia. Abstracts 25th ISCTRC Conference, Mombasa, pp. 38-39.

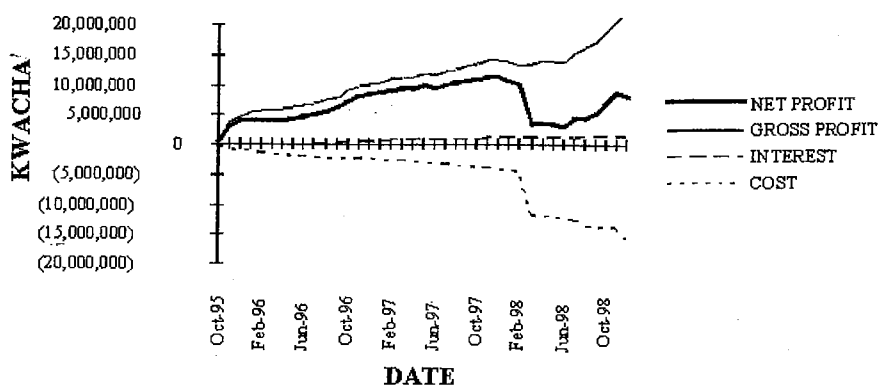


Figure 2. Total cumulative net-profit of trypanocide sales in Zambia (including theft as a cost).