

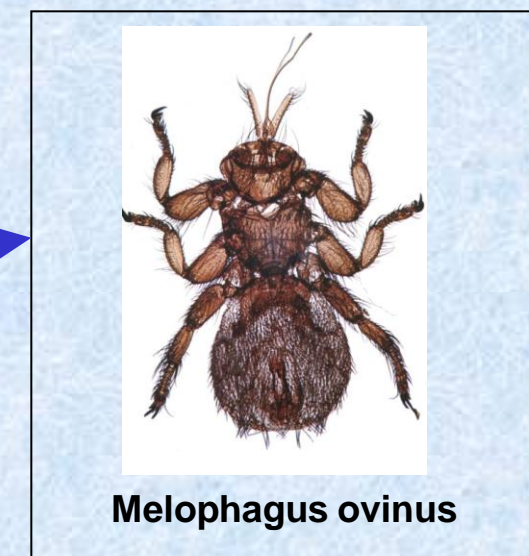
Residual distribution in sheep of cypermethrin applied in the dorsal mid-line region by means of the pour on technique, for the control of ectoparasites.

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Introduction: The data in wool, of residues of insecticides, applied for the processing of ectoparasites are little acquaintances in Argentina. There is not too much information that show the effectiveness of the diverse utilized plagues control procedures. The present work reports on the application of cypermethrin (6%) as a propilenglicol-based formulation, used according to recommendation of the commercial suppliers (3 ml / 10 kg. of body weight).

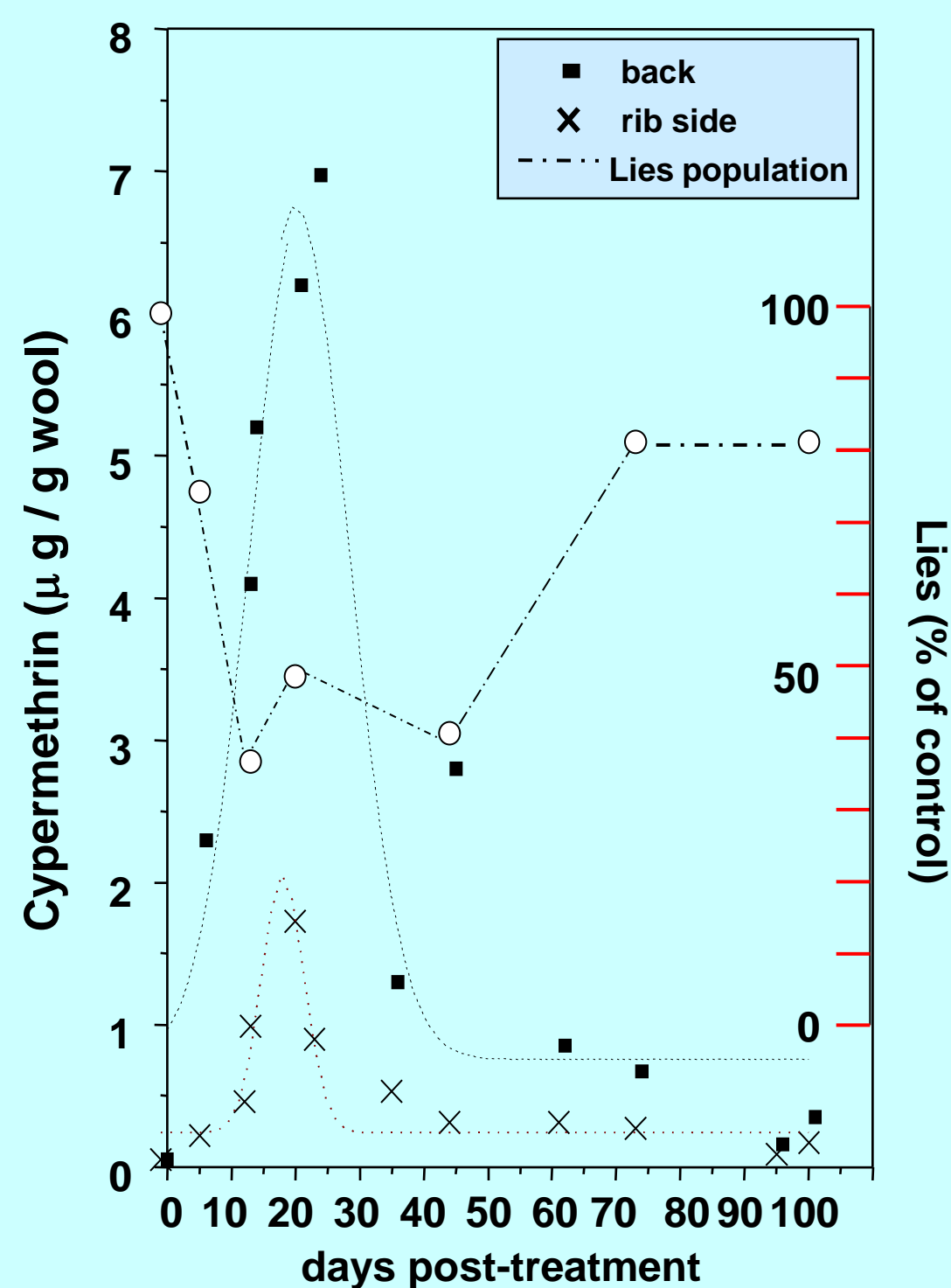


Methodology: 20 Merino sheep (2-year-old), naturally infested with *Melophagus ovinus*, never treated previously with external insecticide, lodged in a field with natural pasture, were treated with the formulation of cypermethrin, applied with the pour on technique, in the dorsal mid-line zone.

2 g. of samples of wool were taken from each sheep, conforming a pool for the back zone and other similar for the right mid side ribs zone. Extractions were done i on the 0 day (without treatment) and to regular intervals (weeks: 1,2,3,4,5,6,8,10,14 and 16).

The pesticide determinations were carried out following CSIRO and Akre & Macneil (2006) methods. The analysis was realized by Gas Chromatography with electron capture detector (GC-ECD). Ked infestations were assessed by examination of the right side sheep.

Gaussian curves of the cypermethrin residues in wool.



Results: The data of residues of cypermethrin showed that the product, with this formulation, went internalizing toward the skin and displacing from the back toward the rib side zone since the 1th. week, reaching the maximum concentration among the 2nd. and 3th. weeks. Values decaying notably toward the 6th and 7th week where the concentrations result on the order of 10% regarding the maximum reached in the 2nd-3th week.

The counting of parasites in the treated animals showed a notable decrease around the same time period (2 - 3 week) coinciding with the maximum concentration of cypermethrin in the wool. Nevertheless, various *Melophagus* (sheep ked) survived and from the 6th week they were increasing slowly in quantity, toward the week 14, suggesting clearly that the decrease of the active insecticide; be for draining, aging ó degradation; permitted the population of parasites to be recovered.

CONCLUSIONS:

It is concluded that is necessary to apply a greater concentration of cypermethrin or to change the technique to eradicate melófagos from ovines.