



## **Sheep and Goat Dip Pool Management**

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The purpose of this factsheet is to provide pertinent information pertaining to the proper operation and management of a sheep and goat dipping pool. Australian research has shown that with proper management of these dipping pools, sheep producers can successfully manage infestations of sheep and goat external parasites. The primary insects of concern are body lice, sheep keds, mites, and ticks.

#### **Pre-Dipping Precautions**

- Conduct moving, corralling and dipping of the sheep in a calm and organized manner. Proper handling will ensure that sheep are not lost by drowning, inhaling or ingesting the dip solution.
- Sheep and goats should be corralled and separated by age and size before dipping. This will reduce or eliminate drowning of young and smaller animals.
- Hot tired sheep should be rested prior to dipping and this will reduce the amount of chemical that will be absorbed into the skin.
- Fasting sheep and goats 24 hours before dipping reduces the amount of feces dropped into the dipping pool. Animals must be provided clean fresh water before and after dipping.
- Sheep should not be dipped until all shearing cuts have healed, preferably with 2-4 weeks and not later than 6 weeks after shearing to avoid skin infections.

#### **Sheep Dipping Method**

- Sheep must become fully wet with dipping solution by being submerged twice during the course of the swim. Sheep should be pushed down into the water with a backwards motion, causing the wool to float upward allowing the water to penetrate to the skin. Research has shown that the distance of the swim is important and should be no less than 9 m in length.
- Paddles or padded tip poles can be used to push the sheep backwards under the water.
- Remember that the back of the sheep's neck is the hardest part of the body to wet in the dipping process. Mites, lice and fleas will move up the body very quickly and reside in dry areas of the body.
- Sheep can be checked for wetting by adding a washable dye to the dipping water.
- Sheep should be held for a short period of time in holding pens, following the dipping before returning to the herd. Large herds of sheep and goats may be identified as treated by placing a small spot of paint on the back of each treated animal.

### **Keep Proper Insecticidal Concentration in the Pool**

- Maintaining a proper concentration of insecticide is essential to success. Low concentrations will not kill the insects and high dilutions may harm the sheep and the humans workers.
- The total volume of the pool (cubic L) should be carefully calculated for determining the insecticide to water ratio. Follow insecticide label directions.
- An alternative is to add water in batches from a 500L tank containing the correct amount of chemical and water. The premix of water and chemical should be poured along the length of the pool and thoroughly mixed with a pole or paddle.
- The sheep wool will remove water from the pool as they leave the pool. When pool reduction in water volume reaches 25%, recharge the pool with the 500 L premix. Volume lines can be painted on a measuring pole and used to determine total volume of the pool.

### **Sheep Dip Pool Management**

- The dip pool should not be allowed to become excessively dirty or bacterial skin infections and wool staining may occur. To avoid harmful effect, a pool should be emptied and cleaned with a disinfectant when *1 sheep has been dipped for every 2 l* of the pools working volume. Therefore, a 100,000 l pool of water should dip 50,000 sheep. Pools must be drained, cleaned and disinfected.
- If the dipping process will last more than one day, a bacteriostatic compound such as chlorine bleach should be added to the pool at the rate of 1-2 l for each 1000 l of pool water.
- Follow label directions for draining of the pool and disposal of the liquid content. The pool water should not be drained near water wells, drainage ditches, or flowing streams. Soil impoundment areas can be constructed exposing the dip solution to soil bacteria, solarization and evaporation. Do not allow animals to graze these areas for several months.

### **Follow Insecticide Label Directions for Safe Use and Personal Safety**

- Most dip chemicals are moderately toxic, and more so when concentrated.
- The operator should wear overalls, waterproof gloves and boots, a washable hat and other protective cloths as directed on the label.
- Waterproof trousers or apron are recommended for those working on the dip.
- Avoid being splashed by sheep entering the pool water.
- Avoid standing in the exit areas where sheep shake the dip water as they leave the site.
- Children and people with compromised health conditions should avoid the sheep processing area.

#### References:

Joshua Edwards, Sheep Plunge Dip Management, Factsheet NSW Gov., Primefact 1141, Dec. 2011