

Copper Sulphate and Tobacco are frequently given in drench liquid. The preparation is the same as for the Copper Sulphate and Mustard drench, except that but one ounce of Tobacco is substituted for four ounces of Mustard.

Copper Sulphate and Sodium Arsenite are used in combination by the sheep ranchers of South Africa, with a high degree of efficiency. This vermifuge requires a special set of measures for its administration. The two drugs are mixed in the proportion of four parts of Copper Sulphate to one part of Sodium Arsenite. The dose is as follows,—

For large sheep, 500 mgr Copper Sulphate and 125 mgr Sodium Arsenite.

For medium sizes sheep, 400 mgr Copper Sulphate and 100 mgr Sodium Arsenite.

For small sheep, 300 mgr Copper Sulphate and 75 mgr Sodium Arsenite. Tobacco infusions and Nicotine Sulphate solutions, containing four-tenths of one percent Nicotine Sulphate are given in doses up to four and one half fluid ounces to adult sheep, with fairly satisfactory results.

Considering cost, efficiency and safety in the farmer's hands the Copper Sulphate and Mustard drench is to be recommended for districts where there is no competent veterinary service.

Mass treatment is not generally very satisfactory in cases where the infection is heavy, but it is well worth its cost and should be used if individual treatment can not be applied. For mass treatment of a flock one pound of finely ground Copper Sulphate can be mixed with each 20 pounds of salt and the sheep allowed to lick at pleasure. Tobacco can be mixed with salt at the rate of one pound of broken tobacco leaf to each ten pounds of salt. This tobacco-salt mixture should be kept before the sheep and lambs at all times, it will keep many young worms from getting started. Copper Sulphate can be mixed with grain or pulped roots and given to sheep in that way with fair success. It is done as follows. Starve the sheep over night to get them empty, mix finely pulverized Copper Sulphate at the rate of, three ounces per 100 sheep, with one bushel of pulped roots. Keep the sheep from other food or water for six hours. If pulped roots are not available 25 pounds of finely ground oats can be used.

We have to fight worms with a poison, and Copper Sulphate is poison, so be careful that no animal gets too much. It pays to dose sheep individually and to employ skilled help as mistakes mean loss.

Prevention of Stomach Worm Infestation.—If at all possible keep the young lambs off the old pastures areas, lanes, unplowed orchards and grass areas around buildings where infested sheep have been running for years. It is a good plan to grow an autumn seeded forage crop as wheat and vetch or rye and use it for early spring pasture. This gives the lambs a clean pasture to start on. From the early spring