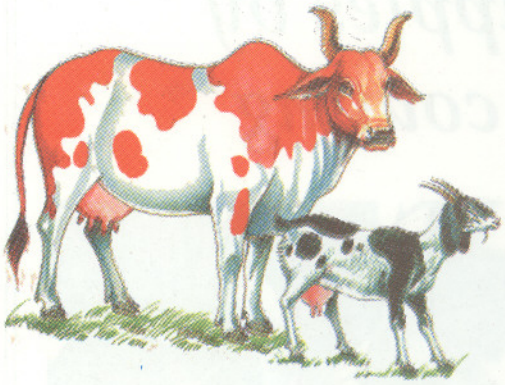
Controlling GI parasites in livestock



Gastrointestinal parasitism due to parasitic Helminths is a major problem in livestock restricting their productivity. The incidence and severity of such parasitism is determined in a region by the diverse agroclimatic conditions, animal husbandry practices and pasture management. In a study conducted in Himachal Pradesh which has a big livestock population and rural people directly dependant on agriculture, horticulture and animal husbandry. flukes such as *Fasciola* (Liver fluke), *Amphistome* (stomach fluke), *Dicrocoelium* (lancet fluke), *Schistosoma* (blood fluke) and nematodes such as *Strongyle* and *Strongyloides* spp. are found commonly. Though tactical dosing of antihelminthic applications is in practice, the problem of GI parasitism is still severe for want of implementation of drenching strategy. Albendazole, oxyclozanide, rafoxanide, nitroxynil, triclabendazole and closantel are being used against flukes. Nematodes are being controlled mainly by morentel citrate, piperazine citrate, thibendazole and mebendazole, fenbendazole, albendazole, levamizole, tetramisole, closentel and ivermectin compounds. Combination of other methods such as using nematophagus fungi and helminthic vaccines has been recommended for effective control [Jithendran, *ENVIS Bull*, 2000, **8**(2), 1].

American Wormseed

An anthelmintic for Lambs

American Wormseed, ***Chenopodium anthelminticum* Linn.** syn. *C. ambrosioides* Linn. var. *anthelminticum* Linn. was introduced in Jammu and Kashmir and Dehra Dun. The plant attains a height of about 1m. The oil obtained from the plant is a well-known anthelmintic particularly used against roundworms and hookworms and to expel dwarf tapeworms. The oil is also used against intestinal parasites of domestic animals and cattle.

Herbal treatment for animal parasites could be more accessible and less expensive for farmers. Recently oral administration of this oil as an anthelmintic against gastro-intestinal nematodes in lambs has been reported. A significant reduction in the number of *Trichostrongyle* eggs (including *Haemonchus contortus* and *Teladorsagia* spp.) has been reported [Kato *et al*, *J Herbs Spices Med Plant*, 2000, 7(2), 11].

Gingerise to tenderize the meat

In India, sheep with their population of 74.9 million worth more than Rs 24 billion and an assured source of annual income of about Rs 8 billion through wool, meat, skin, milk and manure has an important role in livestock. On an average, 32% of their population comprising 30-40% adult sheep are slaughtered to meet the meat demand. Meat from adult sheep fetch low price due to tough and fibrous nature. Various methods such as electrolytes, enzymes, phosphates, inorganic salts, pressure treatments, calcium chloride, etc are used to tenderize and improve quality of such meat. Proteolytic enzymes from ginger rhizome are known for their effective tenderizing action. In addition, treatment with ginger has antioxidant and antimicrobial effects and improves shelf-life. Mutton chunks of adult sheep when treated with ginger extract (3 & 5%) showed improved sensory and keeping qualities, cooking yield and reduced shear force values. Ginger extract treated meat is less prone to storage changes on physico-chemical and microbiological qualities [Mendiratta *et al*, *J Food Sci Technol*, 2000, **37**(6), 651].