

311. **Mittal, S.P., Singh, P., Dyal, S.K.N., Sud, A.D. and Madan Lal. 1989.** Weed control measures in rainfed maize (*Zea mays*) in Shiwalik foothills. *Indian J. Agric. Sci.*, 59(4): 251-254.

In a three year (1984-86) field trial, effect of pre-emergence application of atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine) and different schedules of manual weedings and their combinations (10 treatments) were studied on weed-biomass production, nutrient loss through weeds, yield of maize (*Zea mays* Linn.), net returns, and runoff and soil loss. Application of atrazine @ 1 kg ai/ha + 2 weedings 15 and 30 days after sowing was most effective in reducing the loss of N through weeds to the minimum (35 kg/ha). The same treatment recorded mean maximum grain (2528 kg/ha) and straw (8541 kg/ha) yield of maize, net returns (Rs. 3359/ha) and soil loss (12.51 tonnes/ha) compared with all other treatments. Runoff was maximum (41.4%) with atrazine + weeding 15 days after sowing.