Summary

The recovery of "torourcales" (areas infested with *Homolepsis* sp. in improved pastures of the Peruvian Amazon region is limited because of the high costs of available technology, which implies loosening of compacted soil, improvement of soil fertility, and weed control.

Three hectares of a "torourcal"—used for more than 10 years for cattle raising—were sown to pastures of *Brachiaria dictyoneura* and *Stylosanthes guianensis* in simultaneous cropping with rice, the financing crop. The following treatments were used: two tillage systems (one pass with a disk plow, followed by two passes with a harrow; and two crossed passes with a harrow); four rice varieties (Chancabanco, Palmero, Carolino aguja, and Ucayali); and two N applications (50 and 100 kg/ha). The field was subdivided into plots in a randomized complete block design with two replications. At 20 weeks after planting botanical composition, forage and rice yield, and economic yield were determined. No significant differences among variables were found. Botanical composition was 42% pasture and 35% weeds, with a yield of 0.703 t/ha DM. Rice yield was 0.827 t/ha, both in monoculture and in association. The treatment consisting of two crossed passes with the harrow, "Palmero" rice variety, and 50 kg N/ha gave the highest return through rice sales, which paid for 60% of the production costs. Rice yield, both in association and

in monoculture, was lower than that obtained in higher fertility areas. Crop competition, however, did not affect pasture establishment and its good recovery indicates the residual effect of fertilizer application.