

Tropical Forages-Program

Agronomic trials, Maquenque Area, Carimagua

## "Genotype x environment interaction of Arachis pintol in Colombia."

The objectives of the trial are 1) to identify superior genotypes among the newly acquired A pintoi germplasm across different tropical ecosystems in Colombia and, 2) to determine the influence of environmental factors on the expression of genotypes

The Carimagua trial is part of a multilocational trial comprising 67 accessions established in two sets (1994 and 1995) at six sites in Colombia (Humid forest, two drainage conditions Caquetá, Savannas, two soil textures Carimagua, Hillsides, two altitudes Popayán and Chinchiná) At each site, the legume is sown together with a common grass and is managed by heavy grazing at monthly intervals

## "Small-plot grazing trial of selected Brachiaria accessions at Carimagua."

The objective of the trial is to identify two or three *Brachiaria* accessions that are productive and persistent under grazing for advance to large-scale grazing trials

The trial includes 25 entries including 19 selected accessions, two hybrid-derived selections, and four commercial checks, arranged in randomized complete blocks with three replications. Plots were established in June, 1995. The trial is submitted to periodic mob grazing with stocking rate and frequency of grazing to be adjusted as needed.

"Brachlaria small, row-plot agronomic trial of selected recombinants from breeding populations and selected accessions, Carimagua."

The objective of the trial is to assess agronomic performance of promising germplasm accessions and apomictic clones from breeding gene pools

The trial comprises forty-nine entries, including apomictic recombinants from breeding populations, promising germplasm selections, and appropriate commercial checks

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"Establishment and persistence of legumes in low fertility sandy loam acid soil"

The objective of the trial is to identify plant attributes that contribute to rapid establishment and persistence of forage legumes in association with aggressive grasses

The trial comprises two contrasting grasses (B humidicola and P maximum) and three legumes (S guianensis, S capitata, and A pintoi) The trial was planted in June 1995, as a randomized complete block in a split plot arrangement (grasses as main plots and fertilizer x legumes as sub-plots) Initial application of fertilizer was at two levels (Low 10 kg/ha P, 10 K, 33 Ca, 14 Mg, 10 S or High 40 P, 40 K, 66 Ca, 28 Mg, 20 S, +micronutrients) The trial is subjected to periodic mob grazing according to forage on offer

"Field evaluation of Brachiaria gene pools for adaptation to low fertility sandy loam acid soil"

The objective of the trial is to evaluate differences in edaphic adaptation and persistence of *Brachiaria* genotypes and to identify key attributes of adaptation

The trial comprises 17 entries, including nine natural accessions (four parents) and eight genetic recombinants. The trial was planted in June 1995, as a randomized complete block in a split-plot arrangement with two levels of initial fertilizer application (Low 20 kg/ha P, 20 K, 33 Ca, 14 Mg, 10 S, or High 80 N, 50 P, 100 K, 66 Ca, 28 Mg, 20 S, +micronutrients) as main plots and genotypes as sub-plots. The trial is submitted to periodic mob grazing according to forage on offer

Carimaqua 02 December 1995