

Practical Abstracts from Tropical Grasslands Vol.35 (1) March 2001

Leucaena for weaned cattle in south Florida — by R.S. Kalmbacher, A.C. Hammond, F.G. Martin, F.M. Pate and M.J. Allison, on pages 1–10.

Weaned cattle in Florida typically go onto pasture in summer when its nutritive value is declining or later when there is also less feed available. Leucaena has not been evaluated under grazing on Florida's poorly drained soils. Weaner heifers put on bahia grass with 50% of the area under leucaena in June gained nearly three the weight of those on grass alone (34 kg/hd v. 12) even though they ate little leucaena for the first 3 months. When the heifers went back into the trial in April the next year, they ate the leucaena leaf out within 2 months and gained the same weight as the animals on grass. In a second trial, weaner steers grazed from July–November in 1996 and 1997. Leucaena leaf declined from an average of 2200 kg/ha to 400 kg/ha by November but the steers gained 53 kg/hd against 8 kg/hd. Leucaena can help weaners in late summer and autumn but they need to get used to eating it. If they are accustomed to leucaena when they start grazing, they may put so much pressure on it that there will be insufficient leaf later in the year.

Maximising seed yield and seed quality of *Paspalum atratum* through choice of harvest method — by Chaison Phaikaew, P. Pholsen, S. Tudsri, E. Tsuzuki, H. Numaguchi and Y. Ishii, on pages 11–18.

Pasture grass seed is usually harvested by hand in north-east Thailand. Highest seed yields (1000 kg/ha) and quality (high germination and purity over 90%) were obtained by intensive methods. In the 'cover' method, seed heads are gathered together and a nylon net bag is placed over the clumped heads; seed is collected every 3 days through an outlet in the bag. In the 'under' method, seed is collected from a nylon net placed along the rows under the seed heads for 3 weeks after 50% seed head emergence. Lower yields and poorer seeds was harvested by shaking seed heads into a net every 3 days, by cutting seed heads at 15 days after 50% head emergence, by early harvesting at 10 days after emergence or by late harvesting at 20 days after emergence.

Method and time of establishing *Paspalum atratum* seed crops in Thailand — by Mike Hare, C. Kaewkunya, P Tatsapong, K. Wongpichet, K. Thummasaeng and W. Suriyajantratong, on pages 19–25.

Seed crops of atratum cv. Ubon established from seed do not yield in the first year, but those planted from tillers at the beginning of the wet season can yield over 300 kg/ha after 5 months. Planting any later severely depressed yields, which may be as low as 25 kg/ha when, planted in mid-July. Twenty village farmers in a small project harvested an average of over 600 kg/ha of high quality seed by hand knocking mature seed into bags everyday.

Seed yield and its components of *Brachiaria decumbens* cv. Basilisk, *Digitaria milaniana* cv. Jarra and *Andropogon gayanus* cv. Kent in north-east Thailand under different rates of nitrogen application — by N.R. Gobius, Chaison Phaikaew, P. Pholsen, O. Rodchompoo and W. Susena, on pages 26–33.

Rapid increases in stock numbers have increased demand for pasture and hence for seed of species tolerant of drought and poor soils.

In this north-east Thailand trial, low yields of Basilisk signal grass were probably due to low plant density rather than moisture stress, but Kent gamba grass produced excellent yields and quality. Yields of Jarra seem to be equivalent to reported values.

Nitrogen increased yield and more seed heads but all species lodged with high rates. Gamba grass with its drought resistance, high growth and good seed production with low nitrogen is a useful species for the area.

Competition in pots between two tropical legumes (*Stylosanthes hamata* and *S. scabra*) and two tropical grasses (*Urochloa mosambicensis* and *Bothriochloa pertusa*) at two phosphorus fertiliser levels — by F.D. Hu and Ray Jones, on pages 34–42.

In the paddock, Bowen pertusa pastures generally have less legume than urochloa pastures despite the apparent lack of allelopathy or endophytes. In pots, pertusa did not appear more competitive than urochloa against the legumes at either level of phosphorus although Verano was far more competitive than Seca against both grasses. Despite higher yields with added phosphorus, the grass–legume balance was similar.

Urochloa grew better than pertusa and grew better with the less competitive Seca. Verano grew better than Seca with both grasses and was more responsive to P.

Production and nutritive value of grasses cultivated in the coastal area of Benin — by A. Buldgen, B. Michiels, S. Adjolohoun, S. Babatounde and C. Adandedjan, on pages 43–47.

Smallholders on sandy, low fertility soils in coastal Benin need perennial grasses. In the first wet season, guinea grass cv. C1 gave the best production. In an exceptional drought, only guinea grass and gamba grass survived; ruzi grass did not.

The performance of forage germplasm in a screening trial at Shika, Nigeria — by A.T. Omokanye, O.S. Onifade, J.T. Amodu and M.S. Kallah, on pages 48–52.

Sixty-one forage species were screened for subhumid Nigeria. The highest yields over 3 years were from a Rhodes grass, a common stylo and from *Sesbania sesban*.

Forage yield and chemical composition of centro (*Centrosema pubescens*) in the year of establishment at Shika, Nigeria — by A.T. Omokanye, on pages 53–57.

All forage yields were decreased as planting date was delayed, but were increased with phosphorus application.