

Stylo adoption in Thailand: three decades of progress

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Background

Stylosanthes forage legume was very popular in Thailand for >30 years. *S. humilis* (Townsville stylo) was the first popular species (late 1960s). It tolerated heavy grazing and grew very well along roads on free-draining upland soils, but anthracnose destroyed it in 1976. *S. hamata* cv. Verano (more resistant) replaced it and stimulated large-scale pasture development. From 1976–1984, the Department of Livestock Development (DLD) launched a project to improve 32 Kha of communal grazing land by oversowing Verano (circa 250 t seed/year). This project has been sustained until the present time. Stylo now is used mainly for private grazing and cut-and-carry feeding of cattle. However, farmers generally prefer to plant grass for higher forage yields. Perennial stylo (*S. guianensis*) was also used for >20 years for high-quality, cut-and-carry backyard forage. Graham stylo was planted until 1996 but anthracnose damaged it and production ceased. Due to its good resistance to anthracnose and its high dry matter production, Tha Phra stylo (CIAT 184) replaced Graham stylo immediately. Due to its resistance to anthracnose and grazing tolerance, hybrid stylo seed (*Stylosanthes guianensis* var. *vulgaris* × var. *pauciflora* ATF 3308) is produced for export to South America.

Seed production

For nearly 30 years, the Division of Animal Nutrition, DLD, has implemented a government-supported seed enterprise successfully (Phaikaew and Hare 1998; Hare and Phaikaew 1999). Since 1975, Thai village farmers and DLD stations have produced >4.5 Kt of Verano, Graham and Tha Phra stylo seed.

Area planted

Since 1975, stylo has been sown in >300 Kha of grazing land (private land, communal areas and along roads). Verano is now naturalised, especially along roads in NE Thailand. If establishment failed, some areas were oversown many times. However, due to the decrease in communal grazing areas and the lack of persistence of perennial stylo with heavy grazing and frequent cutting, the stylo area has decreased in size.

Major reasons for adoption

1. *Sandy, acid soils and medium seasonal rainfall* (1250 mm), in which stylo species grow very well. All species survive over the 6–7 month dry season and prolific seeding contributes to their survival.
2. *Easy establishment, high germination and palatable forage* makes stylo the most popular forage legume used by Thai farmers.
3. *Stylo has multiple uses* as forage in cut-and-carry systems, grazing, hay, silage, cover crops and as leaf meal protein in concentrate feeds for dairy, beef cattle, swine and poultry. Stylo planting improves soil fertility.
4. *Cheap stylo seed* is available and produced by village farmers under the DLD program.
5. *Farmers accept stylo as a good-quality forage legume* that can increase milk yield and reduce the cost of concentrate feed. Stylo is used in total mixed rations for feeding dairy cows and beef fattening.
6. *Regular extensive preparatory research, colourful brochures, publications and technical advice* from DLD staff.

Future progress

Thai farmers must develop better skills to manage perennial stylo (Tha Phra and Hybrid 3308) as legume protein banks for the dry season. To develop a seed export market, we must promote Thailand's reputation as a producer of top quality seed. Widespread use of perennial stylo has been limited due to lack of persistence and poor regrowth when it is cut at a mature stage. Hybrid stylo 3308 may be the ideal replacement, as it has good regrowth after cutting, no anthracnose disease and good grazing persistence.

References

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