

The Future for Clovers in the USA

Joe Bouton

The Samuel Roberts Noble Foundation, 2510 Sam Noble Parkway, Ardmore, OK 73401

In the USA, the widespread use of annual and perennial grasses, combined with the availability of cheap nitrogen fertilizer from World War II until the late 1990's, reduced the need and use of clovers. However, Ball et al. (1996) noted that even during this time period in the southeastern USA, 'Yuchi' arrowleaf clover (*Trifolium vesiculosum* Savi.), 'Regal' ladino white clover (*Trifolium repens* L.), 'Louisiana S-1' white clover, 'Tibbee' crimson clover (*Trifolium incarnatum* L.), and 'Kenland' red clover (*Trifolium pratense* L.) were developed and used. Concurrently, there was also very good research during that same time on best management practices that were used to develop very practical guides for establishing and managing the clovers such as the one by Ball et al. (1996). These same trends were also seen in other regions of the country.

The recent increase in the price of nitrogen fertilizer, combined with the emergence of a wildlife industry that uses forage based feed plots, have increased producer interest in using all forage legumes, but especially clovers. Work is currently being done (and even reported at this conference, as well as the 2004 conference) on the breeding, genomics, and management of white clover, red clover, crimson clover, arrowleaf clover, and kura clover (*Trifolium ambiguum* M. Bieb.). Seed production statistics also indicate that during 2003-2004, there were 4,500 tons of red clover seed produced, followed closely by 4,200 tons of white clover seed, and finally by 2,500 tons of the various other *Trifolium* species (Forage & Turf Crop Statistics, 2005). Therefore, there is a viable clover seed industry still in the USA that will surely grow as interest continues to increase.

Although the immediate future for clovers is bright, it is ironic that this renewed interest is coming at a time when overall clover breeding and management research is at a low level in both the public and private sectors. This has resulted in opportunities for international companies to fill the void left by this USA reduction in effort, and include marketing by different European and New Zealand seed companies of their best varieties. These efforts generally involve USA commercial partners, and include assessment trials to measure performance and adaptation of these varieties to particular USA regions. The most successful ones, for example the University of Georgia/AgResearch (New Zealand) partnership, also included collaborative research agreements to develop new cultivars such as 'Durana' and 'Patriot' white clover, and technology transfer of crop management procedures for both seed and pasture production of these varieties for use by the USA commercial partner, Pennington Seeds. This example could serve as a model for similar, future partnerships.

References

Ball, D.M., C.S. Hoveland, & G.D. Lacefield, 1996. Southern Forages, Second Edition. Potash & Phosphate Institute, Norcross, GA (USA).

Forage & Turf Crop Statistics. 2005. Forage & Turf Seed Market 2003-2004. On-line database. (Available on-line at http://worldseed.org/Statistics/Forage&Turf_2004.htm). (Verified 16 June 2006).