

2001/NT02



Producer Research Support

Evaluation of Wynn Cassia

Douglas Daly Producers



The project

For over fifteen years there has been widespread, although unsubstantiated, doubt about the usefulness and palatability of Wynn Cassia. In some grazing trials, cattle performed well on Wynn Cassia/grass pastures, but as Wynn Cassia became more dominant, animal performance decreased.

Producers in Douglas Daly noticed that Wynn Cassia was increasing, and created a project team to quantify the effects of Wynn Cassia dominant pastures on cattle performance.

The aim of evaluating the impact of Wynn Cassia was to look at opportunities to improve productivity and sustainability of sown pastures in Douglas Daly, Northern Territory.

Objectives

1. Assess Wynn Cassia attributes critical to long term pasture productivity;
2. Develop skills for measuring and assessing pastures, biomass levels and soil nutrient status;
3. Develop a better understanding of the dynamics of pastures and pasture management; and
4. Share information and build knowledge on pasture management within the group.

What was done

The project objectively measured the performance of cattle on Wynn Cassia under commercial, and research farm conditions. While the trials and demonstrations were not strictly scientific, they were constructed to gain an insight into the following issues:

- how Wynn Cassia coexists with other pasture species and whether there are species in which Wynn Cassia forms an ecologically stable and productive pasture;
- the conditions under which Wynn Cassia becomes dominant;
- the point in the pasture growth cycle, when cattle eat Wynn Cassia;
- how the quality of Wynn Cassia is related to seasonal conditions;
- the required stocking rate for optimal stock and pasture performance;
- how animal productivity varies between straight Wynn Cassia and Wynn Cassia mixes;
- whether Wynn Cassia is suitable for hay production, and acceptable as hay or cubes for the live export trade;
- the aggressiveness of Wynn Cassia growth and how to control it in unwanted areas;
- the nitrogen contribution of Wynn Cassia, and what soils and nutrition are required to support Wynn Cassia; and
- the influence of Wynn Cassia on other important weeds.

The outcomes of this project clearly show Wynn Cassia to be an easy to establish, persistent plant with plenty of seed and reasonable nutrition. It also shows that it has poor palatability - cattle don't really like it.

Key points

- Wynn Cassia has been described as an easy to establish, highly persistent, dominating legume of low palatability, with low grazing value in fertile soils (in the Douglas Daly).
- It may have a role in soil conservation and may also have potential for hay and pellet production.

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Producer Research Support

MLA Producer Research Support offers support funding of up to \$15,000 over three years for groups of producers keen to be active in on-farm research and demonstration trials.

These activities include:

- Producer Initiated Research and Development
- More Beef from Pastures demonstration trials
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Contact Stephen Feighan - MLA Project Manager, Producer Delivery and Adoption.
Tel (02) 9463 9245 or
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Douglas Daly Producers

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Data collected over the two and a half years of the trial included:

- two grazing trials;
- fertilizer response demonstration;
- soil and plant analysis;
- Wynn Cassia hay and pellet feeding trials; and
- general observations of the group.

What happened?

Grazing trials indicated that Wynn Cassia is not well accepted by cattle and that dry matter intake is relatively low. Animal productivity from Wynn Cassia dominant pastures was found to be potentially 20 to 30 percent lower than that from other improved pastures and pasture combinations. This may extrapolate to a producer cost of around two hundred dollars per hectare, in lost production, and even more in delayed sales and associated costs.

The group nominated selection criteria for desirable pastures, and identified four of the most popular pasture species grown in the district.

Using a performance matrix, Wynn Cassia was ranked against the selection criteria, and against the four popular pasture species.

The outcomes of this process showed that Wynn Cassia is:

- an easy to establish, highly persistent, dominating legume of low palatability; and
- of low grazing value in fertile soils (in the Douglas Daly). It may have a role in soil conservation and may also have potential for hay and pellet production.

Discussion

While further analysis is required to confirm real costs, preliminary data suggests that pasture productivity is lost – with a consequent economic impact – when pastures are overrun with Wynn Cassia.

As a result of this project, most producers in the Douglas Daly will no longer plant Wynn Cassia. Many are implementing management practices to reduce its dominance and improve pasture productivity. Producers are now more aware of the need to monitor pasture performance more objectively.

Community confidence about conducting research and development projects has greatly increased, with young people embracing the opportunity to become involved in applied research, and in organising and addressing meetings.

Next Steps

Wynn Cassia's prolific seeding and adaptation to a wide range of conditions almost guarantees its continued spread. The challenge for industry is to develop sustainable management strategies to ensure improved pastures remain productive and profitable.