**PUTTING BLACK KNAPWEED TO BED**

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**SUMMARY**

Black knapweed (*Centaurea x moncktonii)* is regulated as Prohibited Matter under the NSW *Biosecurity Act 2015* because it can outcompete desirable pasture plants, is not usually eaten by stock and produces chemicals that suppress other plants. Plants in the Asteraceae family are difficult to control with herbicides when in flower. However, plants are hard to detect prior to flowering, making targeted control at this earlier growth stage challenging.

A 150 ha infestation of black knapweed was detected in Tenterfield on the Northern Tablelands of NSW in 2019. Plants were found on eight premises. The discovery followed several years of drought and at the time the weed was one of the few green plants visible in the area. The majority of all plants found were present in just one paddock of approximately 74 ha where they were grazed heavily by cattle, with very high plant numbers concentrated in a 2 ha core. Interestingly, there is strong evidence to suggest that black knapweed had been deliberately introduced to the infected property over 100 years earlier. No other potential source of infestation has been uncovered.

Black knapweed is a hybrid of *C. jacea* and *C. nigra*. Based on research for these two species, black knapweed is presumed to have a seed longevity of five years. Repeated multi-agency surveillance exercises have been conducted since the infestation was first detected and will continue until proof of freedom can be established at all eight infested premises. Survey transects established in 2019 prior to repeated boom and spot-spray treatments show there has been a reduction in the black knapweed population over time. Development of an algorithm for remote detection of flowering plants, and use of scent detector dogs are under investigation.

**Keywords:** knapweed; survey; surveillance.