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# **TECHNIQUES TO IMPROVE GROUND COVER IN THE WESTERN CATCHMENT OF NSW**

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## **INTRODUCTION**

Landholders in the Western Catchment are employing different types of management strategies to improve or maintain groundcover, so they remain sustainable both environmentally and economically. Total grazing pressure is a critical factor that needs to be managed if vegetative ground cover is to be maintained or increased. The Western Catchment Management Authority (WCMA) has implemented a Groundcover Incentive Program. This provides financial assistance to landholders to implement on ground works and infrastructure which assists them to manage their landscape more strategically, so the catchment target of 40% groundcover can be achieved through sustainable grazing practices.

## **TOTAL GRAZING PRESSURE**

Total grazing pressure (TGP) is the combined effect of domestic stock (sheep and cattle), native herbivores (kangaroos) and feral herbivores (goats and rabbits) grazing pastures. In many rangeland areas, livestock can account for less than half of the total grazing pressure; the remainder is contributed by feral and native herbivores (Landsberg and Stol 1996). It is widely recognised that it is essential to attain effective management of both domestic and non - domestic herbivores if landholders are to manage seasonal risk and achieve sustainable resource use (Hacker and Freudenberger, 1997).

## **TECHNIQUES USED TO MANAGE TGP IN THE WESTERN CMA**

As a result of the Groundcover Management Incentive program, the Western CMA is assisting landholders to gain more effective management of TGP through training and on ground works. Through this program, landholders propose a project to help manage total grazing pressure, based on their current infrastructure and management objectives. The outcome of the project is to increase vegetative groundcover by means of manipulating grazing practices and removing external grazing pressure from goats and kangaroos.

On ground works that have been funded through the program include TGP fencing (such as hinge joint, electric Weston fencing and upgrading existing boundary / internal fences to TGP standard) which allows producers to enclose an area in order to keep unwanted herbivores out and to manage the grazing pressure by domestic stock within the area. Existing paddocks may be subdivided, properties may be fenced to land type or a complete property boundary may be fenced to provide greater control over grazing pressure. Commonly, graziers utilise paddocks until a trigger point (defined by the landholder) is reached and then the area is de-stocked before all vegetative groundcover is removed, which allows pastures to regenerate during a specified rest period dependant on pasture growth rates and rainfall received.

Another key component of managing grazing pressure is consistent removal of feral animals such as goats, through trap yards constructed on ground tanks and around troughs. Fencing off and / or trapping these waters allows removal of unwanted grazing pressure from a paddock and also enables the water point to be closed off (thus deterring goats and kangaroos) during times of rest. Trapping waters also facilitates speedy removal of domestic stock once the critical lower pasture level is reached.

Installation of additional water points is another strategy which assists producers to spread grazing pressure evenly across a paddock. In paddocks with existing water points that are not centrally located, funding is provided to strategically place polythene pipe, poly tanks and troughs within a paddock to

enable stock to utilise areas of pasture that are not normally grazed within the radius of the existing water point. Again, groundcover must be monitored regularly and stock removed once the available pasture has reached the defined lower limit or trigger point.

Funding has also been provided to landholders to attend educational workshops and courses which aim to enhance landholders grazing, financial and 'people' management. Examples of these include Pasture to Pocket workshops, Grazing for Profit and Business of Farming courses, as well as attendance at conferences and forums. It has been observed that involvement in these activities provides graziers with current information on best management practices and also provides a valuable learning opportunity for landholders to interact with others who may have similar problems in their districts.

## **MONITORING**

An ongoing requirement of each project is that landholders monitor the project area and an adjacent untreated area for ten years. Photo points are set up at the completion of the on-ground works and step pointing is conducted to determine initial site condition. Soil surface stability, vegetation state, management changes, rainfall, natural events and the percentage of groundcover are recorded each year, with canopy cover recorded in years one, five and ten. Each year for ten years, photo points and step pointing data must be submitted to the WCMA and put on file to establish if any significant changes in landscape health have occurred as a result of the project.

## **CONCLUSION**

The Western Catchment Management Authority has been conducting Incentive programs for three years to assist landholders in the Western Catchment to implement management strategies to improve or maintain groundcover. Projects that assist in managing total grazing pressure are the main focus of the program and may include such things as hinge joint and electric fencing that meet TGP standards, fencing off water points, installing trap yards, installation of alternative water points to spread grazing pressure and attendance at strategic grazing management courses. Although it is in the early stages, it is hoped that this program will improve the condition of the rangelands of the Western catchment as a whole and enable landholders to remain sustainable both environmentally and economically. We hope this can be achieved by reaching the catchment target of maintaining 40% groundcover through sustainable grazing management practices.

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