



## Media Release

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### Stumbling Upon a Productive Saltland Pasture

- In times of drought it is ironic that a once unproductive salt scald on land at Pine Ridge in the Namoi Catchment is now thriving while everything else around it is wilting from lack of moisture.

- Lachlan Rowling, Salinity Officer with NSW DPI and George Truman, Salinity Catchment Officer with Namoi CMA have been studying the effects of planting salt tolerant species on a number of sites across the Namoi and Gwydir catchments and the results have been amazing.

According to Lachlan “a large stand of salt pasture was chosen for analysis on a site in the Pine Ridge district of the Liverpool Plains. The area is typical of local salinity sites and is characterised as a low-lying discharge site (saline, waterlogged soils) surrounded by local hills and underlying geology which form a natural constriction to groundwater movement.

- “The aim of the Salt Sites Analysis project is to validate the unique soil conditions characteristic of saltland areas in this region and determine which pasture species perform best in relation to soil salinity, waterlogging and other soil factors.

- “Much of the literature we rely on in terms of salt pasture production is specific to southern NSW so it is useful to determine which are the best species suited to the local region and what conditions they can tolerate,” Lachlan said.

- “Either by accident or good design or a bit of both, the saline scald was planted with Tall Wheatgrass and Strawberry Clover about ten years ago,” George Truman said.

- “Both species are well suited to the high levels of salt and periods of seasonal waterlogging. The overall production of the pasture was astounding with green feed on offer (herbage mass) measured at up to 9220 kg of dry matter/Ha. There has been limited grazing of the pasture since establishment and this has resulted in excellent persistence across the site.

- “What has really stood out is the high level of pasture growth during a season when annual pastures have dried off and other perennial pastures are suffering from an extended dry period,” George said.

- Tall Wheatgrass pastures have come under scrutiny in the past due to their potential to grow dry, rank and unpalatable if they are not grazed appropriately. From local experience it has been noted that if Tall Wheatgrass is complimented with a legume, such as Strawberry Clover, and rotationally grazed, including resting periods when waterlogged, the pasture remains productive and nutritious.

A study completed by the Victorian DPI in relation to the feed quality of Tall Wheatgrass has shown that the salt pasture species is comparable to other pastures in terms of crude protein, digestibility and energy when it is kept short and leafy.\*\*\*

- Both Lachlan and George agree that where the salt pasture was sown, it has the potential to be utilised as a very handy feed reserve pasture.

“It could be utilised as out of season forage or managed as a dry season pasture reserve (drought pastures) with extended growth during dry periods as a result of accumulated moisture on salt sites.

“And down lower in the landscape, subject to seasonal periods of waterlogging and where groundwater often discharges at the land surface would be an ideal site, as this allows natural sub-surface irrigation to the pasture,” they said.

Now the technical assessments have been proven, it is time to extend the area of pasture and put it into practice. That’s where Namoi CMA comes in with assistance and funding.

- George Truman from Namoi CMA said “future activities to be done at the site include extending the area of the saline pasture establishment, subdividing the paddocks, installing watering points and undertaking rotational grazing to ensure the pastures are actively growing and utilising water.
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- “We will also trial raised bed pasture establishment techniques in an attempt to offset the influence of waterlogging and inundation,” he said.
- “The Soil and Salinity Program is a component of Namoi CMA’s investment in onground works to encourage the use of land within its capability and to promote the adoption of best management farming and grazing practices, leading to greater perenniality and groundcover.
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- “The intended outcomes of this program are to reduce salt mobilisation, reduce soil loss and improve water quality across the entire Namoi Catchment,” George said.

Onground activities that Namoi CMA may contribute towards to enhance environmental benefits include: subdivisional fencing, water supply enhancement, perennial pasture establishment, fertiliser, new/modification of farm machinery, soil conservation earthworks, revegetation, sustainable farming systems and rehabilitation of saline discharge outbreaks.

This project is an extension of the Sustainable Grazing on Saline Land (SGSL) project that is funded through Land, Water and Wool. The project has been operating for the last three years with five sites located in northern NSW.

Further information on the Salt Site Analysis project, contact Lachlan Rowling 6763 1166. For information on Namoi CMA incentive funding or advice on management of salt affected areas contact George Truman 6742 9203.

\*\*\*Tall Wheatgrass (at two different growth stages [< 20cm height] and [> 1m height] had a crude protein value of 18.9% and 7.6%, Digestibility of 75.3% and 52.4% and 11 and 7.4 MJ/kg of energy respectively. This was compared to Tall Fescue which had a crude protein of 20%, digestibility of 74.5% and 11.2 MJ/kg of energy.  
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Caption for photo – L to R - George Truman, Salinity Catchment Officer, Namoi CMA and Lachlan Rowling, Salinity Officer, NSW DPI inspecting a planting of the salt tolerant species, Tall Wheatgrass and Strawberry Clover, on a saline discharge area near Pine Ridge.