Saltland Pastures Association (Inc.)
ABN: 21 719 802 753
for productive saltland

INQUIRY INTO THE EXTENT AND ECONOMIC IMPACT OF SALINITY IN THE AUSTRALIAN ENVIRONMENT

Saltland Pastures Association Submission

2nd November, 2005




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Louise Gell
Committee Secretary
Senate Environment, Communications, Information
Technology and The Arts Committee
Department of the Senate
Parliament House
CANBERRA ACT 2600

Dear Louise,

INQUIRY INTO THE EXTENT AND ECONOMIC IMPACT OF SALINITY IN THE AUSTRALIAN ENVIRONMENT

Saltland Pastures Association - Background

The Saltland Pastures Association (SPA) is a West Australian farmer-driven group, which was formed in 1997 to promote the use and benefits of saltland pastures. SPA has almost 100 members, and through our quarterly newsletter, reaches an audience of over 400. Our members and newsletter recipients are primarily landholders, but also include research and extension professionals, NRM groups and other interested community members. SPA has strong links and partnerships with other industry groups and R&D initiatives with an interest in productive saltland management, such as Sustainable Grazing on Saline Lands (SGSL), a sub-program of Land Water and Wool, and the National Committee of the Productive Use and Rehabilitation of Saline Land initiative (PUR$L).

Salinity in Western Australia

Salinity in Western Australia currently affects over one million hectares of agricultural land. This figure is expected to rise to more than five million hectares over the next 50 years, despite our best efforts to prevent its spread. However confronting, SPA recognises this and believes that saline land must become productive for agriculture to remain profitable into the future. The concept of adapting to salinity, rather than controlling or preventing it is relatively recent, and comes with the realisation that there is no 'silver bullet' solution to salinity. SPA however, believes that the saline environment should not be treated as wasteland, and that there are ways to manage this land to make it profitable. Many producers in WA are also realising that current measures to reverse salinity are often unsuccessful, and saltland pastures, together with surface water management can in many situations, slow the spread of salinity, whilst making the valley floor productive.

The salinity situation in the Wheatbelt of WA is largely different to salinity in the Eastern States. With predictions of up to 30% of the agricultural landscape becoming saline, finding ways of making this land productive is crucial to the future of

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agriculture. There are also large differences in the way salinity can be managed within WA. Generally, saltland pastures are more suited to the zone of ancient drainage, or eastern wheatbelt, where low relief landscapes and broad valley floors are typical. These areas have very little lateral groundwater flow (left and right) and are at high risk of a shallow, saline watertable. This means that if we can control recharge 'in situ' on the valley floors, we can have an impact on the groundwater levels. Piezometer readings under saltbush stands are showing evidence of this, with a drying of the soil profile up to two meters down. This reduces the onset of waterlogging and allows better pasture growth in areas traditionally prone to waterlogging.

Environmental Benefits of Saltland Pastures

As saltbush-based pastures lower water-tables, salts tend to leach through the soil profile, allowing salt sensitive and highly productive annual plants to recolonise the area. This drier soil profile will also have flow on effects downstream. A valley floor revegetated with saltland pastures will reduce flooding and water erosion risks and reduce silting of waterways, as well as providing a more conducive environment for the return of many native plants and animals. A reduction in salt and nutrient loads in larger rainfall events also occurs, having the potential to reduce the downstream impacts on waterways and native vegetation. Impacts on infrastructure such as roads and railways, currently at high risk of damage from salinity, can also be reduced. SPA is currently involved in research to determine the amount of carbon sequestered in saltbush and the likely environmental and economic benefit that it may have.

Economic Benefits of Saltland Pastures

As well as downstream environmental benefits, saltland pastures differ to all other salinity management strategies in that they can be profitable to producers, who find saltbush-based saltland pastures of most benefit during late summer and autumn. At this time, green feed is absent, stubbles have been utilised and farmers generally have to feed out hay or grain. Saltbush-based pastures provide a welcome source of green feed and a good source of crude protein and vitamin E (deficiency is a problem at this time of year). Saltland pastures allow farmers to increase the number of livestock on-farm, and in many circumstances stocking rates on saltland can be higher than on annual pasture. These factors combined mean that overall farm profit can be increased by 10% (O'Connell and Young, 2002).

Social Benefits of Saltland Pastures

It is well known that farms are getting larger and communities are shrinking as more and more farmers sell out to their neighbours. No doubt salinity will become one of the reasons why farmers decide to sell and leave. With increased production from saline land making farms more profitable, this exodus will be slowed and with increasing opportunities from other industries based around saline land and water (eg. inland saline aquaculture); we may even be able to slow it even more. This of course will have significant impact of the survival of many rural towns and communities.

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Saltland Pastures Association Projects

The principal objective of SPA is to facilitate the revegetation of one million hectares of salt affected agricultural land in WA over 10 years (2005 – 2015). This project, called 1MPULS> (**1 M**illion Hectares of **P**roductive **U**se of **L**and with **S**alinity) has been developed with the view that there is at least one million hectares of land currently suitable for saltland pasture systems.

As part of 1MPULS>, SPA has developed the Saltland Revegetation Initiative (SRI) to encourage farmers to adopt saltland pastures. SPA recognises that there are several barriers which prevent farmers adopting saltland pastures, with high establishment costs and limited on-ground support the major contributing factors. The SRI has two components to address these issues:

1. **Growers Support Network**
   One-on-one paddock level advice is very important when considering something as potentially complex as saltland pasture establishment. Currently in WA there is a lack of expertise in saltland pastures in regional areas. SPA plans to develop a Grower Support Network to provide farmers with essential on-ground planning and support, by employing six part time officers to provide advice and assistance with saltland pasture establishment. SPA has applied for funding under the National Landcare Program's Community Support scheme to implement this component.

2. **SRI Incentive Payments**
   Incentives for landholders to change their production systems can have a significant impact, not only on adoption rates but also on the profitability of the system once implemented. SPA believes that even relatively small incentives would be likely to have a significant impact on adoption rates. Consequently, SPA is discussing the possibility of an incentive payment scheme with regional NRM groups. This, in conjunction with on-ground support from the Grower Support Network, would mean that implementation of saltland pastures is undertaken in a way that improves confidence and establishment success.

NAP/NHT

The successful adoption of saltland pastures requires landholders to establish pastures prior to the land becoming highly saline. When land is mildly to moderately saline, a wider variety of plants of better nutritional value can be grown and with more chance of success. This means that the pasture system is more likely to be profitable and sustainable. Waiting until land becomes highly saline dramatically limits the plant options available and reduces the chance of success. From an environmental view point, the timing of intervention is also critical to ensure that groundwater tables remain below the surface and that land does not become sodic and unable to support plant growth. However, the pragmatic, short term economics of saltland management often drives landholders to continue to crop marginal saline land with more salt tolerant crop species such as barley, beyond the point of optimum intervention, and beyond the point when such crops are profitable.

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With the timing of intervention critical to maximise success, and with 14,000 ha of agricultural land becoming saline each year in WA, it is crucial that funding bodies place high priority on supporting saltland pasture systems. Many Regional NRM group Investment Plans in WA still appear to have a focus in targeting 'high recharge area' such as sandy soils and beneath granite rocks. From SPA's point of view, supported by current research, investment should be targeted at revegetating valley floors, where, particularly in the eastern wheatbelt, we will have a much greater impact on the amount of land affected by salinity.

National Landcare Program

Late last year, SPA secured National Landcare Program (NLP) funds to appoint a Project Manager to implement 1MPULS>. This funding has been critical in ensuring that SPA has the capacity to develop projects that will directly target producers and provide them with advice and support in adopting saltland pasture systems. As discussed earlier in this submission, SPA has applied for further funding under NLP's Community Support project to provide on-ground support to first time saltland pasture producers.

SPA believes that the support of production groups is crucial to making on-ground changes in salinity management. There has been a change in attitude by many producers in WA, in that they can now see financial benefits in many forms of salinity management. This extends beyond saltland pastures and includes tree crops and perennial pastures, and integrating these options into the whole farming system. Producer groups in these areas (several also supported by NLP) are making a large impact on increasing adoption of profitable options.

Future Research Needs.

While we appreciate that the inquiry is focused on on-ground and extension activities, we believe there is a need for much more research in this area, particularly in light of the fact that several research initiatives, such as the National Dryland Salinity Program, SGSL and the CRC for Plant-based Management of Dryland Salinity have finished or have a limited life. The potential for increased production and profitability of the saline areas and therefore the whole farm is immense. This increase will come from improved pasture species, both new and enhanced existing species, improved management techniques as well as improved understanding and appreciation of the value of the increasing areas of saline land.

Regards

Michael Lloyd

SPA Chairman

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PUR$L

The other day a friend of mine came to me and said: -
"I want to have a word with you; you must be off your head!
"PUR$L? What the hell is that? And why that Dollar sign?
Don't give me any bullshit now of Triple Bottom Line!

"Don't tell me you can make a buck from all this salty land.
Productive Use? – Don't make me laugh! I'll lay you half a grand.
"I know your type – you'll con us all with stories that you tell.
I want to know how you can boast! I know you all too well!"

I looked at him, my face was flushed. My count to ten was slow.
I stood and calmly talked with him, this was the way to go.
"But all we've done is nothing more than turn this land around.
We've brought it back from near the brink. It's now productive ground.

"Economics play a part; it's why that Dollar sign.
And yes, it is the driver of that Triple Bottom Line.
"Farmers need the confidence that they can make it pay.
They have to get their money back, there is no other way.

"We need a greener attitude to show the world we care,
To leave this land in better shape when we're no longer there.
"We need to know what we do now won't cause some future pain.
We hold this land in sacred trust - not for selfish gain.

"The Social side's important, too. More people need to stay.
Should we just ignore this land –? Give up and walk away?
"With ev'ry salty farm that's sold to neighbours down the road,
It's one more family that has gone – One less to share the load."

He just stood there and stared at me, his face all racked with pain.
"You're bloody mad," he blurted out, "It's money down the drain!"
As stubborn as a mule, he turned and quickly strode away.
Try as we might, he won't change, his mind we'll never sway.

But we have seen production come from all this salty land.
Wool and meat, seed and fish, it's time to make a stand.
Those of us who've walked this road must tell of what we've done.
We must continue on ahead until the race is won.

And so it is Productive Use with Triple Bottom Line.
And yes, it's PUR$L, through and through, and keep that DOLLAR sign.

Michael J Lloyd ☺
September 2002

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