

# Newsletter

Number 57

January 2017



## Successful Stipa workshops

Thanks to our sponsors



[www.stipa.com.au](http://www.stipa.com.au)

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**STIPA is not an acronym.** The association was named after the *Stipa* genus of grasses, now *Austrostipa*. One of the *Stipas* is commonly known as spear grass. At its inception in 1997, the association aimed to spearhead a change in attitude to native grasses. As that change is occurring, Stipa continues to promote the use of native grasses to achieve profit from a healthy landscape.

### Stipa Native Grasses Association (ABN 42 300 161 459)

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## From the Chair

**Annabel Walsh**

### **Based On Stipa AGM 2016 report**

The Stipa 2016 annual report hopefully reflects the unique and vital role Stipa is providing. The key role is ensuring farmers have a vehicle to share their regenerative farm practices with scientists and other farmers. It is clear we are pulling well beyond our weight.

This past year has been no exception, our newsletter, which is now only available on the Stipa web site, has reflected these innovative ideas. Many of the changes to management are driven by Stipa members through careful observation and a great understanding of biogeocological processes.

It is clear, the recent rush in the scientific world to catch up and know more about the functional world below our feet has been driven by farmers. Words like aggregation, glomalin, arbuscular mycorrhizal fungi, fungal hyphae and polysaccharides are now all words familiar to us. Some of the scientific papers seem to talk in riddles but they all agree that soil health is driven by plants. Only photosynthesis, through green



plants capturing sunlight to synthesize nutrients from water and carbon, can feed us and sustain the planet. It's not that hard but it is amazingly complex and our management needs to nurture this complexity through planning and monitoring to increase biodiversity in our grasslands/ pastures.

Many of the conventional farming inputs (fertiliser, chemicals) can be provided through natural processes if we just provided the right management. As Gabe Brown pointed out there are 78,000 tonnes of nitrogen in the atmosphere above every hectare. Gabe has designed his management so that he does not have to buy fertilizer for his cropping. This is not news to Stipa members who know that highly functioning perennial grasslands maximise this element.

## From the Chair

**Annabel Walsh**

In grassland landscapes the importance of recovery, especially growing season recovery has been reinforced by the Action on the Ground research. Graeme Hand's article on 'spring spelling' or for those further north wet season spelling has been the light bulb moment for 2015/16. It's all about planning ahead.

The continued dedication from Col Seis and Graeme Hand to nurture and foster the importance of native perennials in our grazing and cropping practices has never been more apparent. The multi-species pasture cropping systems will help to speed up the increase in landscape function and soil health but we must not lose sight of the vital role native perennial grasses play and it is only when we have fully functioning landscapes with diversity in our soils and plants can we truly call our farming practices sustainable.

The over whelming positive responses and feedback from the recently conducted Stipa workshops give us all great encouragement that we are on course and Stipa will continue to provide a vehicle to encourage



good farm practices using the amazing natural dynamics available to us, confirm the science through partnerships and share our findings. Thanks again to our sponsors Best Environmental Technologies P/ L., Goulburn Broken CMA and Meat and Livestock Australia (MLA)

On the political front our fundamental Stipa farming practices are still not truly recognised in any mainstream thinking. We are trying to change this and by doing so we should be able to build a case for funding or sponsorship to support at least the admin, this will be an important task for the committee for 2017.

Best wishes for the festive season and may your soils aggregate, your water stay on your land and most of all enjoy the fruits of your labour with family and friends.

## From the CEO

Graeme Hand



Photo By Lucy Hand

### In this report

- **Stipa Ninth National Native Grasslands conference**
- **Update Spring Spelling**
- **Holistic Management International conference**
- **Cairns National Biological Farming Conference**
- **Stipa multi-species cover cropping workshops**
- **Victorian No Till conference**

### **Stipa Ninth National Native Grasslands conference**

This year's conference, which was run as two repeated workshops, with Gabe Brown from North Dakota and was incredibly successful with over 240 people attending. Gabe Brown has a deep understanding of the relationship between plants and soil health. The article in this newsletter will cover the key points that Gabe made about the importance of perennial native grasslands in grazing systems.

### **Update spring spelling**

In this Newsletter, I have tried to capture another year of following the spring spelling idea. A very wet year following two very dry years provided new challenges and again we have found that following our own advice is not that easy.

### **Holistic Management International Conference, Paicines Ranch, California**

It was a privilege to be invited to speak at that HMI conference in California in October. This three-day conference which combined field walks and presentations was well attended and was a lot of fun with a one great group of people. I presented on the impact of risk in agriculture based on Dr Tim Hutchings work and behaviour change based on

Doug McKenzie Mohr's work. Let me know if you would like links or more detail.

## **Cairns National Biological Conference**

It was also a privilege to be invited to speak at the Cairns National Biological Farming Conference. Thanks to Fiona George for organising and looking after me. Annabel Walsh also attended this conference and we got to spend a lot of time discussing with like-minded people, including Gabe Brown, how to progress the importance of native perennial grasslands.

## **Stipa Multi-species cover cropping training**

We have developed a workshop series to reduce the barriers to adopting multi-species cover cropping. The purpose of this training is to provide you with clear instructions and strategies to quickly improve soil health, animal performance and profitability.

The benefits versus costs for each cropping system will be

covered as well as ensuring you achieve the improved animal performance possible with multi-species covers.

We are still looking for funding sources to support the cost of running this training.

Let me know if you are interested in organising a group in your area.

Graeme 0418532130

## **Victorian No Till conference**

It was great to attend the Victorian No-Till Conference, in Bendigo, during July. The three international speakers were a highlight from me. Johnathon Lundgren is an entomologist who, with his family, is self-funding and crowd funding research on the damage that many chemicals and farming practices have on insects and pollinators. See [bluedasher.farm](https://www.bluedasher.farm). Photos opposite are from this website

Johnathon's passion is very infectious if you get a chance it is worth a look (<https://www.youtube.com/watch?>



Photos from  
Bluedasher Farm  
website

## Stipa Ninth National Native Grasslands conference

### Multi Species Cover Cropping workshops with Gabe Brown

Stipa was fortunate to be able to host Gabe Brown from North Dakota for two workshops in November. This could be organised due to Col Seis' friendship with Gabe.

The first workshop in Shepparton was also followed by a farm visit to Fraser Pogue's property at Ardmona. The second workshop was held in the hall at Eurimbla (near Cumnock) New South Wales followed by a farm visit to Sally and James Morse's property. Our thanks to these two families for opening up their properties.

Gabe's presentation was very professional and clearly showed the benefits of management that increased landscape function and diversity.

Annabel and I enjoyed our extended time with Gabe travelling between the two workshops.

As with all seemingly simple practice changes there are significant barriers to being successful.

The following list is what I picked up from Gabe's talks and farm visits on:

- If you are not planting cash crops, then two years of multi-species cover cropping to improve soil health before going back to diverse perennial grassland is recommended as the most profitable and regenerative.
- Multi-species cover cropping must be designed to address the current resource issue. For example, if soil is low in fungi then including grass type cover crops will increase soil fungal content and activity while providing ground cover.
- The right type of seed drill to enable planting through significant litter levels is important. Gabe uses a single disc opener with a depth gauge wheel. The gauge wheel holds litter in place as it is sliced by the disc allowing Gabe to plant through deep litter (see photo of similar type



opener).

- Profitable cash cropping combined with a profitable grazing enterprise is required to optimise the value of multi-species cover cropping. The Browns direct market their beef and sheep. Gabe comments that they typically make more money out of grazing than cash cropping.
- Flexible grazing management with the ability to use ultra-high stock density as required. Gabe grazes some cover crops at greater than 15,000 DSE/ha.
- Continual trialling is required in highly complex systems like farming to determine what works for you. Gabe states that they “want to fail at several things a year”.
- “I will not till,” Gabe asserts. “Tillage destroys carbon, soil life, structure, infiltration and water holding capacity.”



**Gabe Brown checking for fungal content and activity - with Annabel Walsh and Col Seis. If fungal content is low Gabe increases grass type covers such as oats (cool season) or sorghum (warm season)**

Please see the article following on workshops Stipa will be offering in 2017. These workshops have been designed to reduce the barriers to being successful with multi species cover cropping.



**Single disc opener like the type Gabe Brown uses. Photo: Farm Machinery Sales**



**Animal impact — Gabe Brown uses to rapidly enhance soil health. Photo Gabe Brown**

## Stipa Multi Species Cover Cropping Training

### **Reducing the barriers to your success**

Stipa has developed a series of workshops to reduce the barriers to successfully adopting multi-species cover cropping. This training combines Col Seis' experience both in Australia and the USA with Graeme Hand's experience in providing business advice and training to cropping and grazing farmers. The training will also cover the material in the recently released Holistic Management® Planned Cropping Manual.

The training is designed around previously successful programmes:

- Three meetings per year
  - i) The first meeting will be to make sure that you go home with a trial design and multi species cover crop seed mix designed for your farm, your machinery and your resource concerns.
  - ii) The second meeting will be to make sure that all your options for terminating the multi-species cover crop or harvesting are selected.
  - iii) The third meeting is to design appropriate grazing management to ensure that you increase soil health, soil carbon and groundcover.
- Meetings to be held on member's farms.
- Sharing of results.
- Monitoring of your profitability.
- Monitoring of your soil health.

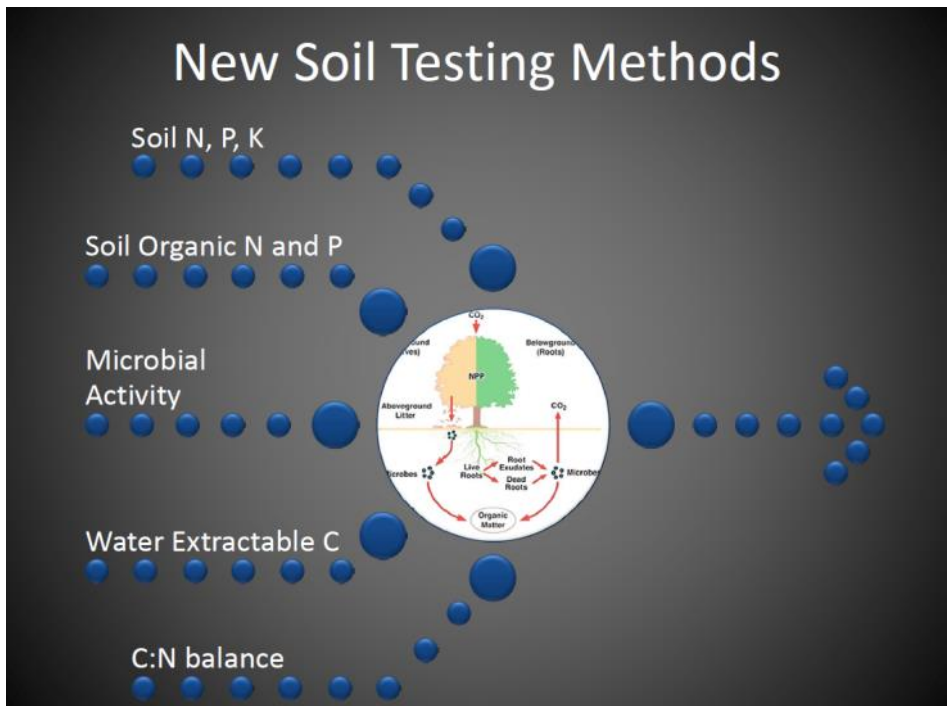
The following cropping system concerns will also be covered:

- The impact on soil moisture on future crops from your cover crop.
- The impact from your cover crop on providing 'a green bridge' for rust inoculum.
- The impact from your cover crop on plant available nitrogen.
- The impact from your cover crop on your seeding window.
- The impact from your cover crop on weeds, diseases, nematodes and aphids

## Stipa Multi Species Cover Cropping Training cont.

### Soil Health Tool

As part of your baseline monitoring of soil health Stipa has been in contact with Dr Rick Haney who has developed a Soil Health Tool which includes water-soluble carbon: nitrogen tests. These tests are far more sensitive at determining soil health and crop availability of nutrients, especially Nitrogen. We have organised a laboratory to provide these tests in Australia and we have ground truthed several sites so that we can help interpret your results for you.



### Soil Health Tool Design

Source: Dr Rick Haney ARS, Temple, TX

## Stipa Multi Species Cover Cropping Training cont.

### Soil Health Tool results for different management practices.

Management				
	<b>N</b>	<b>P</b>	<b>K</b>	<b>OC</b>
1. Organic	2	156	95	233
2. No-Till, Low Diversity	27	244	136	239
3. No-Till, Med Diversity, High Syn Fert	37	217	199	262
4. No-Till, Hi Diversity, No Syn, Livestock, High C	281	1006	1749	1095
Tested by Dr Rick Haney, ARS, Temple, TX				

Nitrogen (N), Phosphorous (P) Potassium (K) and Organic Carbon (OC)

Data: Gabe Brown North Dakota - management system 4.

You will go home with the following:

- Selecting the level of regeneration that suits you.
- Benefits of each level of regeneration
- Suitability of your seed drill.
- Impact of your stubble/litter levels.
- Multi-species mix (both cool season and warm season) to address your resource concern or stock performance.
- Fertiliser requirements.
- Herbicide requirements.
- Timing of planting - can you plant dry?
- In crop requirements.
- Grazing impact on soil health and animal performance.

## Stipa Multi Species Cover Cropping Training cont.



**Photo Col Seis – Multi species Pasture Crop**



Increasing landscape function increases soil stability.

A good check is to take a jar of water coming into your property and a jar of water leaving.

This was the improvement from land managed with planned grazing for 18 months

**Photo Graeme Hand — Water entering property on the left; leaving on the right**

## Stipa Multi Species Cover Cropping Training cont.



**Photo Col Seis – Multi species Cover Crop**



**Photo Col Seis – Multi species Cover Crop**

## Spring Spelling Update

January 2017

### Key Points:

- Policy works in an extremely wet year
- Animal performance was okay and landscape function continues to build
- Record wet spring created delays in adjusting stocking rate.
- Long recoveries over spring helps animal performance through summer

In the Summer 2016 Newsletter I reported that the policy of selling, on seasonal forecast, before the main growing season, was going well. Overall the policy resulted in moderate profit and low workload in two very dry years (2014 489mm, 2015 473mm versus an average 617mm). The action taken was to reduce stocking rate by 50% before both Springs (start of August) based on poor seasonal forecast, landscape function levels and no soil moisture.

In the Winter 2016 Newsletter I reported the mistakes we made in autumn 2016 not keeping to plan and water issues. The Spring Spelling calculator indicated that carrying 66% of district stocking rate through Spring would ensure that we had ample grass for Summer.

Keeping with the classic Australian climate of droughts and flooding rains we returned to well above average rainfall for winter and spring (840mm versus an average 617mm). The wet conditions resulted in the sale of cows with calves being pushed back from end of July until end of September when we could get gravel for the cattle yards delivered. Poor planning resulted in empty cows not being sold at the end of November but in the start of January. Steer weaners have been sold during the second week of January.

Overall these delays have meant that we have sold more steer weaners, than planned, to make sure that we have enough standing grass to get



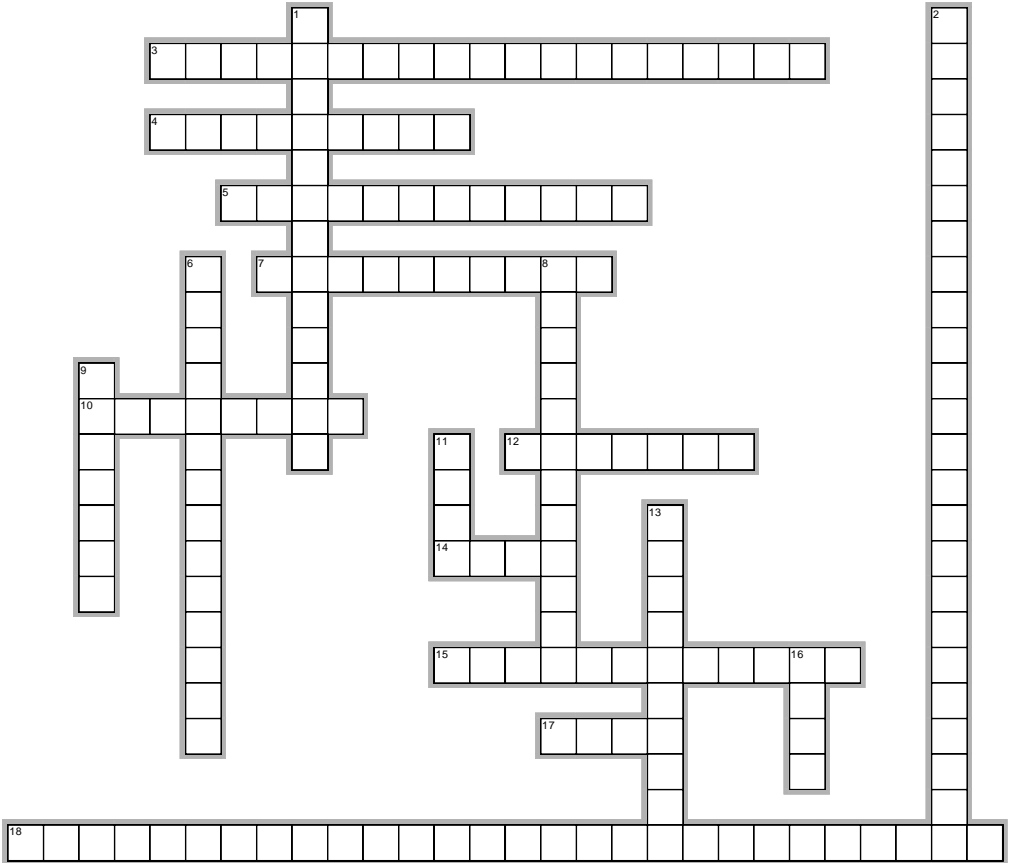
through to the autumn break. High volumes of grass are not an issue with planned grazing. With set-stocked grazing management many have cut hay and purchased stock to clear the growth points of the standing feed to prevent a shift to lower successional grasses. Animals at high stock density clear growth points and push litter onto the soil surface increasing nutrient cycling water, infiltration and soil stability while germinating better grasses.

Our current focus is grazing to the north and west of the house to lower biomass in case of fire. Currently grass is drying off quickly and dung scores are increasing slightly. Cows and weaned calves (one mob) are performing well on the dry feed with a green understory. We still have a green understory due to long recoveries/ slow moves during spring that keeps canopies intact increasing water use efficiency due to higher CO<sub>2</sub> concentration as discussed by Malcolm Beck ([https://issuu.com/hmi-in\\_practice/docs/104/4](https://issuu.com/hmi-in_practice/docs/104/4)).



**Photos taken 13/1/2017. Green understory produced by slow moves through wet Spring. Increasing Kangaroo grass**

## Crossword



## Crossword Clues

### Across

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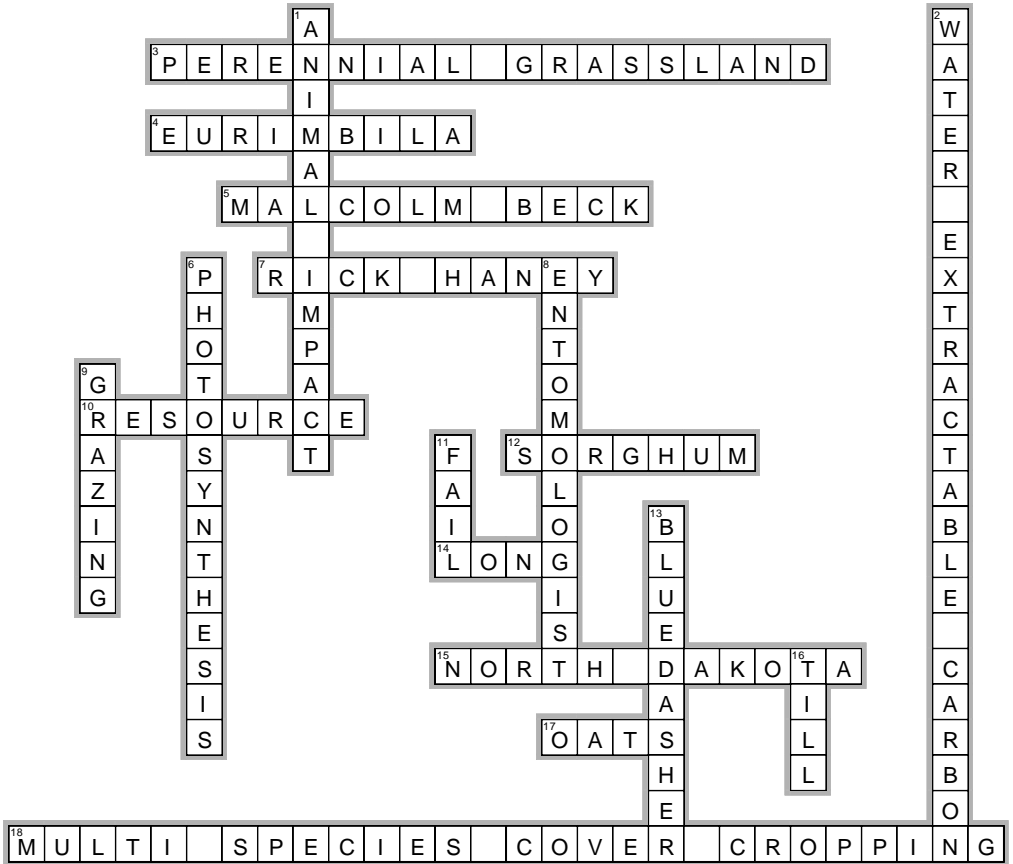
3. Most profitable and regenerative if not cash cropping
4. Where second Stipa workshop was held
5. Writes on the benefits of maintaining canopies
7. Developed soil health tool
10. Cover crops must be designed to address this issue
12. Warm season grass cover
14. Recoveries to produce green understorey
15. US State where Gabe Brown lives
17. cool season grass cover
18. New Stipa workshops

### Down

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1. Used to rapidly increase soil health
2. Key test for soil health tool
6. Only this process can sustain the planet
8. Johnathon Lungdren's qualification
9. More profitable than cash cropping for Gabe Brown
11. What Gabe wants to do several times a year
13. Farm where research on insects and pollinators takes place
16. What Gabe brown will not do

## Crossword Key



## Membership renewals

### Please note

Stipa is changing the way they renew memberships. We will endeavour to mail/ email out your renewal tax invoice one month prior to your expiry date. If you would like to renew please mail us a cheque or EFT your membership.

Please remember to make reference on all EFTs and return cheques your **INVOICE NUMBER** (found on the top of your Stipa tax invoice).

## Attention all members

To ensure that you continue to receive Stipa newsletters and updates, please remember to advise us of any change of email address.

Also if you wish to receive emails about forthcoming events and other matters of interest, it is important that we have your correct email address.

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