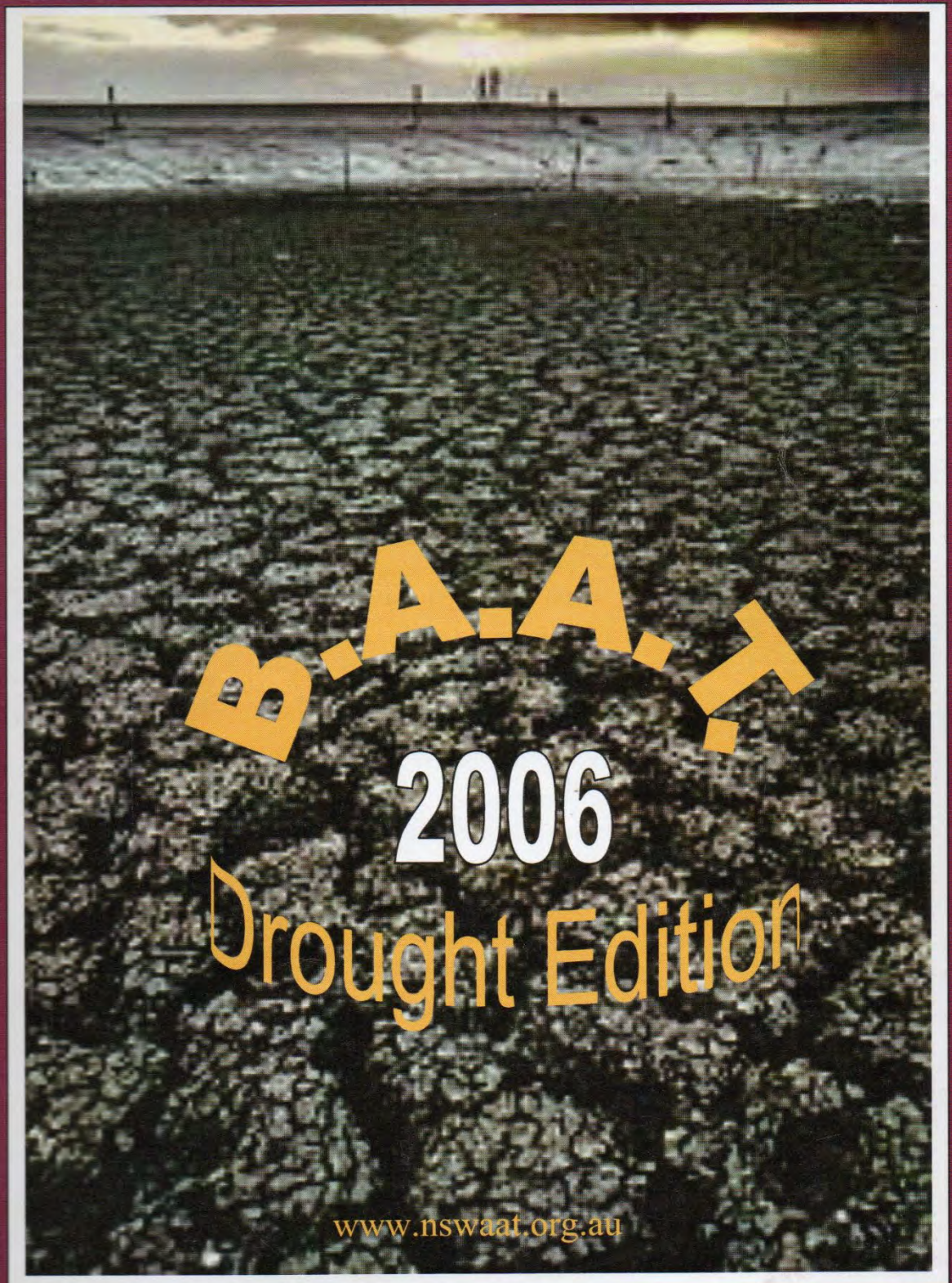
BAAT Edition No.29 Summer 2006

Bulletin of the NSW Association of Agriculture Teachers



Note from the Editors

Yanco Agricultural High School Agriculture/TAS Staff

Thanks to all those who have contributed to this magazine – we have found this a new and most rewarding experience to put such a magazine together. I'm sure there are a lot of members who could do a much better job, and we would like to say "well you can do it next time". Actually, we are looking forward to your contributions for our next edition. Nothing is too small or insignificant.

Thommo

Wanted Your help

Contribute to BAAT

ilt1@bigpond.net.au

2006 NSW ASSOCIATION OF AGRICULTURE TEACHERS EXECUTIVE

Back Row: Peter Humphries (Deniliquin High School), David Crick (Barham Central School, Secretary), Robert Cain Hay (Memorial High School, President), Greg Fulljames (Yanco Agricultural High School, BAAT)
Front Row: Robin O'Leary (Finley High School), Johana McCarthy (Hillsdon Central School, Treasurer)

OUTGOING EXECUTIVE MEMBERS

Stephen Trickett (Billabong High School), Allan McMillan (Wagga Wagga High School, Secretary), Tony Butler (Tumut High School)

MERGER OF THE OLD AND NEW

The NEW Association of Agriculture Committee are as follows:
NSWASSOCIATION of AGRICULTURE TEACHERS Inc.

EXECUTIVE 2006-2008

PRESIDENT:
Robert Cain

Hay Memorial High School
Pine Street
HAY 2711 NSW
Ph: 02 6993 1408
Fax: 02 6993 1223
haywarmem-h.School@det.nsw.edu.au

SECRETARY:
David Crick

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Ph: 03 5453 2322
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barham-h.School@det.nsw.edu.au

TREASURER:
Johana McCarthy

Hillston Central School
62-80 Moore Street
HILLSTON NSW 2675
Ph: 02 6967 2277
Fax: 02 6967 2385
hillston-c.School@det.nsw.edu

WHAT'S BEEN HAPPENING IN THE RIVERINA?

E H GRAHAM CENTRE for AGRICULTURAL INNOVATION
an alliance between Charles Sturt University & NSW Department of Primary Industries

CHARLES STURT UNIVERSITY — NSW DEPARTMENT OF PRIMARY INDUSTRIES

"Ag Enrichment Day"

Monday 4th September 2006

^ 100 Year 10 & 11 Agriculture students from 12 schools across the Riverina attended a 'full' day at the E.H.Graham Centre for Agriculture Innovation.

^ Aim of the day was to provide some 'hands on' Agricultural activities to our 'High' flyers in year 10 & 11.

^ The day was sponsored by the E.H.Graham Centre & the Agricultural practicals were conducted by the NSWDPI & CSU Agriculture faculty staff.

^ Students were exposed to 40 minute Ag practicals in the following areas:

- **Salt Salinity**
- **Plant Disease**
- **Cereal Science**
- **Biotechnology**
- **Weed Science**
- **CSU bus tour**

^ The CSU bus tour provided the students with an idea of the facilities that the Uni has in Agriculture Science, with the view of attracting quality Ag students post year 12.

^ We are all grateful to the NSWDPI & CSU staff for their enthusiasm & the time they put into making the day very successful for our students.

^ A huge thanks to Allan McMillan for his vision in organising this great activity for the Ag students across the Riverina.

Events for Ag & PI Teachers

DET STAFF TRACTOR TRAINING COURSE

More Info:

CONTACT

Graeme Anderson
Nth Wagga TAFE
Ph: 69395040
graemeanderson@tafensw.edu.au

^ DET staff including:

- **Agriculture teachers**
- **Farm Assistants**
- **General Assistants**
- **Primary Industries teachers**

all have the chance NOW to be trained or updated in the OH&S & tractor training.

^ In association with Nth Wagga TAFE & in particular Graeme Anderson a one or two day course has been set up solely for this training.

Ag. Shows

September Shows:
Grenfell: 1&2nd
Narrandera: 2nd
Finley: 3rd
West Wyalong: 5 & 6th
Murrumburrah: 8&9th
Ungarie: 9th
Ariah Park: 9&10th
Hay: 9& 10th
Ardlethan: 16th
Temora: 23rd
Hillston: 23rd
Young: 24-26th
Lockhart: 24th

October Shows:
Griffith: 1&2nd
Wagga 5&6th
Culcairn: 7th
Corowa: 8th
Illabo: 14th
Cootamundra: 20&21st
The Rock: 21st
Junee: 28th

November Shows:
Albury: 3-5th
Holbrook: 11th

NSW Association of Agriculture Teachers Inc.

New Executive for 2006 - 2008:

Introducing

PRESIDENT:

Robert Cain
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Pine Street
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Ph: 02 6993 1408
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haywarmem-h.School@det.nsw.edu.au

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HILLSTON 2675 NSW

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hillston-c.School@det.nsw.edu

Membership is NOW due

Contact: Johana

Membership to the NSW Ag Teachers Association:
$60 per year or $120 for 2 years

Contact:

Allan McMillan
Wagga High School
Ph: 69253611 (W)
al_mcmillan@bigpond.com
or
Tony Butler
Tumut High School
Ph: 69471077 (W)
vineyard@dragnet.com.au

YOU can contribute to this newsletter by sending info to..

Introducing...

No.1 9 '06

Purpose of Newsletter:

^ Welcome to the first newsletter from the:
"Riverina Agriculture Teachers Interest Group".

^ The genesis of this newsletter came from the need to maintain & establish stronger networks of communication across the Riverina to Agriculture & Primary Industries teachers.

^ Ideally we would encourage everyone throughout the Riverina to be involved in letting other Ag teachers know what's happening around the place.

^ This newsletter will work only if we all contribute to its material.

^ The newsletter was a direct result of the NSW Ag Teachers Conference held in April at Wagga Wagga of this year to also continue the great ties that we all have with the Nth Wagga Wagga TAFE, the E.H.Graham Centre at CSU & the very committed CSU Agriculture staff.

^ We would like this to become YOUR newsletter with you informing colleagues of:
- ~ Your school Ag & PI events
- ~ T&D days & events in the Riverina
- ~ NSW Ag. Association news.
- ~ Ag. Show dates & events for students. Etc....

^ We anticipate that the newsletter would be produced once a term.

ENRICHM□NT DAY AT WAGGA WAGGA □ HARL□S □TURT □ NIV□RSITY

A great deal of thanks goes to Deirdre Le Merele director of the EH Graham Centre CSU – Wagga Wagga, and her staff for the recent Enrichment Day for year 10 and 11 students. The EH Graham Centre is the NSW Ag Institute & CSU research arrangement at Wagga Wagga.

Students from all over the Riverina were invited to attend the enrichment day. This was very beneficial to all who attended and was deemed to be such a success that all were hoping that it would be run again next year.

CSU Enrichment Day

Thanks to all who were involved and we hope that it will be able to b run next year.

Visit HSC On-Line and PTC

http://hsc.csu.edu.au/pta/

PTC's web n' flow resource site

http://www.ptc.nsw.edu.au

PTC AGQTP leadership site

http://www.ptc.nsw.edu.au/leadership

TIPS 'Kids Challenge'

http://www.professionalteachers.nsw.edu.au/kidschallenge

THOMMO'S HOLIDAY SNAPS

During my Winter vacation North I came across some places that are very supportive of assisting us with Agricultural Education. These places could not do enough for me to assist in resources and welcomed excursions if they could be arranged.

I. A. Watson Research Centre at Narrabri

This is a great resource for those who want to develop their Plant Production Units and Electives. Current research is being carried out on new varieties to suit the North West Region.

Australian Cotton Research Centre

What was really great about the Cotton research Centre was how they took particular interest in the promotion of their industry. They were also very generous in resources. David Larsen is the person to contact if you would like to arrange a visit or to get resources. One particular resource that I get sent regularly through my email is:

From: David.Larsen@dpi.nsw.gov.au [mailto:David.Larsen@dpi.nsw.gov.au]
Sent: Tuesday, 19 September 2006 1:40 PM
To: David.Larsen@dpi.nsw.gov.au
Subject: Cotton Catchment Communities CRC eNews - 14 September 03

Subject: Cotton Catchment Communities CRC eNews – 14 September 03

Welcome to the Cotton Catchment Communities CRC eNews. You are receiving this because you have registered your email address at the Cotton Catchment Communities CRC's Technology Resource Centre. To stop receiving this, see instructions at the bottom of the newsletter.

The aim of this electronic newsletter is to inform you of important new information that is available on the **Cotton Catchment Communities CRC** website:

Significant additions and changes to the Cotton CRC web site and upcoming events are listed below.

2005-2006 Insecticide Resistance Management Strategies for Cotton

The Insect Resistance Management Strategies 2006-07 season are available by grouped regions:

- *Northern Central Highlands*, Dawson and Central Highlands, Dawson and Callide Valley Callide Valleys
- *Darling Downs* including Burnett, Clifton, including Burnett, Clifton, Milmerran, Condamine (not Surat)
- *Central & Southern* Balonne, Macintyre, Gwydir, Lower & Upper Namoi, Bourke, Macquarie, Lachlan, Murrumbidgee

http://www.cotton.crc.org.au/Publicat/Pest/IRMS/irms0607.htm

WEEDpak New and updated chapters and documents

- *WEEDpak Herbicide damage and Information Guide*

http://www.cotton.crc.org.au/weeds.htm?page=Herbicide%20damage%20guide

- *WEEDpak H6 Managing caustic weed in cotton*
- *WEEDpak H7 Managing mintweed weed in cotton*
- *WEEDpak H8 Managing lippia in the cotton farming system*
- *WEEDpak I1 Rotation crops introduction*
- *WEEDpak I4 Managing Lucerne strips in cotton*
- *WEEDpak Index of botanical and common weed names - Update*

http://www.cotton.crc.org.au/Publicat/Weeds/WPConten.htm

Environment and NRM management

- *Design Principles for Healthy Waterways on Cotton Farms* (Large File 670k)

Well designed irrigation storages and water courses on cotton farms can aid in the removal of sediment, nutrients and pesticides from irrigation water and enhance their habitat value for native plants and animals. This brochure outlines key principles for increasing the water use efficiency, water

quality and habitat value of cotton farm watercourses and storages.
http://www.cotton.crc.org.au/Assets/PDFFiles/Enviro/waterway.pdf

- *Biodiversity of Water Storages on Irrigation Farms in the Border Rivers Catchment* Cotton Catchment Communities CRC Information sheet (540K)

With the decline in natural wetlands, these water storages may now represent a key form of artificial aquatic habitat within the Border Rivers This Document outlines research carried out to determine biodiversity in Border Rivers water storages
http://www.cotton.crc.org.au/Assets/PDFFiles/Enviro/BdWS0606.pdf

Nutrition

- *Nutrient sampling guidelines for cotton.* Cotton Catchment Communities CRC Information Sheet

Interpretation of soil or plant tissue analyses is often difficult due to confusion about sampling methodologies or locations as well as testing laboratories, which can lead to variable results.
This information sheet has been compiled in an effort to provide some standards across the cotton industry and assist with improving sampling techniques to minimise this variability.
http://www.cotton.crc.org.au/Assets/PDFFiles/nutripak/SamGL06.pdf

Northern Australia Research

A number of papers were generated from Australian Cotton CRC research into the potential of growing cotton in the north of Australia

- *GM Cotton Research in the Ord River Irrigation Area (684K)*
- *Field evaluation of INGARD® cotton and integrated pest management (IPM) systems in the Kimberley(2000)*
- *REFUGE CROP OPTIONS FOR A BOLLGARD II® RESISTANCE MANAGEMENT STRATEGY AT KUNUNURRA, WESTERN AUSTRALIA*
- *The seasonal dynamics of arthropods in conventional, INGARD® and Bollgard II® cotton genotypes in a winter production system at Kununurra.(2005)*
- *DEFINING AN INTEGRATED PEST MANAGEMENT (IPM) SYSTEM FOR INGARD® COTTON IN NORTH-WESTERN AUSTRALIA(2003)*

http://www.cotton.crc.org.au/Publicat/NthIssue.htm

NEW & UPDATED DATABASES

- New seasons Cotton Tales and NRM News - Information sheets from regional extension officers

http://www.cotton.crc.org.au/Dataforms/index.cgi?db=cottontales0607&distinct=region

MEDIA RELEASES:

- *COTTON CRC SCIENTIST WINS NATIONAL WATER AWARD*
- *NEW RESEARCH PROGRAM TO REVIEW COTTON INSECT THRESHOLDS*
- *APHIDS USE NATURE TO BEAT CHEMICALS*
- *COTTON SUCKING PEST CONTROL REVIEW*
- *COTTON TO ATTRACT SCIENCE DEVOTEES*

Email from Brett Heffernan General Manager - Public Affairs National Farmers' Federation

Hi all,

As you all know from the meeting we held on 20 June, NFF undertook to drive the Ag in Schools initiative with a view to leveraging Federal Government 'will' into funding/co-ordination for a national program.

NFF has engaged with the Federal Government to pursue this approach, which the Minister (McGuaran) has received enthusiastically. We have highlighted the Government's own research which strongly indicates that the community has 'an expectation' that the Government should be the source for credible information... this fits with NFF's push to ensure the integrity of the program to be delivered - ie. industry at arms length.

NFF has been advised the Government's 'scoping study' is now complete and awaiting feedback from the Minister.

Once the Minister signs off on the proposal, NFF will be engaged as a key stakeholder to have input on the direction from here - our understanding is they are looking at the UK FACE model (many of you may know abouth this model - any feedback would be welcomed?). We are advised that it works very well in the UK.

Again, our understanding is that the Government will look at establishing a special NGO to deliver the program (joint Federal Government and Industry funding). The Government would undertake to actively promote the program/materials to all schools across Australia as 'the' credible source for information - enabling teachers to access and use resources applicable to the curriculum in their State or Territory.

The various programs being run around the country - Farm Day in Victoria, for example - could then make contact with the NGO to assist in roll out/development of their program more broadly within States or grow it across State borders. While this is still very much in its infancy, the direction is positive.

Further discussions will be held once the Minister has approved the direction. As soon as we know more, I will keep you all in the loop.

Cheers,

Brett Heffernan
General Manager - Public Affairs
National Farmers' Federation
Office: 02 6273 3855
Mobile: 0408 448 250
PO Box E10, Kingston ACT 2604

Australian Science
Teachers Association

OUR DRY CONTINENT

A resource book of ideas for teachers
for National Science Week 2006

2006 National Science Week Resource Book
ORDER FORM

Members:	**$12.00**
Non-Members:	**$15.00**
STAs:	**$10.00**

POSTAGE & PACKING (inc GST)		
No. books ordered	ACT/NSW	Interstate
1	$2.70	$2.70
2	$3.80	$3.80
3-5	$8.00	$10.00
> 5	POA	POA

Are you a member of a State/Territory Science Teachers Association? YES ☐ NO ☐

IF YES, WHICH ASSOCIATION

CONTACT NAME

SCHOOL NAME

ADDRESS

STATE | POSTCODE

PHONE | FAX

Number of books ☐ Postage $

☐ Cheque enclosed for → **TOTAL** $

PLEASE CHARGE MY CREDIT CARD
☐ Mastercard ☐ Visa ☐ Bankcard

CARD NUMBER

EXPIRY DATE

CARDHOLDER'S SIGNATURE

DATE

A tax invoice will be supplied with each order.

Australian Science Teachers Association

PO Box 334, Deakin West ACT 2600
Tel: 02 6282 9377 • Fax: 02 6282 9477
email: asta@asta.edu.au • www.asta.edu.auu

Email from Stephen Blunden, Senior Lecturer, School of Natural Sciences, University of Western Sydney,4570 1281

Dear Tony

As you would be aware student intake into Agriculture and related courses has been shrinking over the last 5-10 years. So, in an attempt to arrest this for our own institution, we have spent 18 months with industry developing a new degree for 2007 and we want to know whether you can play any role in getting information out to Ag. teachers or possibly career advisers.

I have attached a letter about our new degree which aims to integrate production and supply chain in contrast to traditional agriculture degrees that have nothing or little agribusiness or agribusiness degrees that have no agriculture production. The course was developed with an industry advisory committee consisting of

Mr Maurice Sinclair (Chair)
Chief Executive Officer
Logistics Bureau Pty Ltd
Sydney

Ms Judy Howard
General Manager Woolworths Academy
Woolworths
Sydney

Len Banks
NSW Department of Primary Industries
Orange

The Hon. Richard Colless, MLC
Parliament of NSW
Macquarie Street,
Sydney

Also there is an article from My Career, May "There's a farm in my office". It is the first time I have seen an article in the city press that reveals the real and great opportunities that exists in Agriculture.

Please feel free to contact myself or Gavin Ramsay g.ramsay@uws.edu.au 02 4570 1282 to discuss further.

Thanks and have a good weekend.

Stephen

Stephen Blunden, Senior Lecturer, School of Natural Sciences, University
of Western Sydney,4570 1281

Holbrook Show

Email from Tim Murphy
Education Officer
National Centre for Pork Industry Training and Education

From: Murphy, Tim (PIRSA - SARDI) [mailto:Murphy.Tim@saugov.sa.gov.au]
Sent: Monday, 10 July 2006 3:53 PM
To: ac@emc.vic.edu.au
Subject: PigEd package

Andrew,
As per our phone conversation,
We now have completed our 'PigEd' package (previously called 'Pigs in Schools') which includes lesson plans, assignments and a virtual piggery. We now have funding to promote the uptake of the package (a CD plus glossy booklet of careers in the pork industry). I would like a list of schools Australia-wide that teach agriculture for secondary students years 8-10 (target audience of the package). Through the NAAE, is it possible to identify schools teaching agriculture in each state that would benefit the most from the package (the 'best' 100 ag schools in each state). The package has been funded by Australian Pork and will be available 'free of charge'.
Our website www.nationalporkcentre.com.au is 3 years out of date and will be my next project.
There are future plans to line up schools with piggeries nearby, and the process to get a small piggery on a school site.
Much appreciated,
Tim

Tim Murphy
Education Officer
National Centre for Pork Industry Training and Education
J.S. Davies Building
Roseworthy Campus
S.A. 5371
Phone: +61 8 8303 7720
Fax: +61 8 8303 7689
Mob: 0403 326 840
www.nationalporkcentre.com.au
tim.murphy@nationalporkcentre.com.au

AnimalHealth
AUSTRALIA

Suite 15, 39-39 Napier Close
Deakin ACT 2600
T: 02 6232 5522
F: 02 6232 5511
E: animalhealth@animalhealth.com.au
W: www.animalhealthaustralia.com.au

13 November 2006

Mr Ian Thompson
Head Teacher
Yanco Agricultural High School
Private Mail Bag YAHS
259 Euroley Rd
YANCO NSW 2703

Dear Mr Thompson

Protect Australian Livestock Campaign

The Protect Australian Livestock Campaign is a national campaign managed by Animal Health Australia on behalf of Australian governments and major livestock industries. This campaign aims to raise awareness among livestock producers of the importance of recognising unusual disease symptoms in their livestock and reporting this to an appropriate vet or stock inspector. You may be familiar with the campaign's slogan **'Look. Check. Ask a Vet.'**

We are seeking your assistance, as an agricultural education provider, in displaying and distributing the campaign fridge magnets, fact sheet and posters. We welcome any support in promoting the Emergency Animal Disease Watch Hotline - 1800 675 888. This may be through newsletters, websites, in class or through general reference.

Enclosed are samples of the campaign materials, including a magnet, fact sheet and poster, designed to encourage all livestock producers to 'Spot the Risks' and 'Look. Check. Ask a Vet'. Materials are available to you free of charge for distribution to all producers (both current and aspiring), and can be ordered using the enclosed order form.

In addition, a short article on emergency animal diseases and good biosecurity management practices is enclosed. This article is the first in a series of articles developed by Animal Health Australia for use in your newsletter (or similar). You can use this article on its own or as a series over a number of issues.

The remaining articles in the series are available by contacting Sefton & Associates on 02 6742 6655 or via email ruth.redfern@seftonpr.com.au. Alternatively we are able to write a tailored media release, highlighting specific animal health issues or biosecurity management practices that are relevant to your students.

We thank you for your involvement in the Protect Australian Livestock Campaign and encourage you to order and distribute the awareness materials and articles.

Yours sincerely,

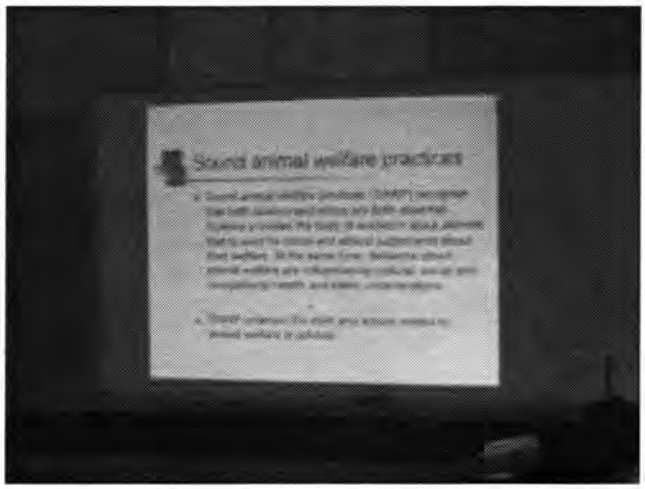
Ruth Redfern
Sefton & Associates
(for Animal Health Australia)

ANIMAL WELFARE

Yanco Agricultural High School was priveledged to host the Animal Welfare and ICT in Agriculture Conference on 1st September, 2006. Sally Bannerman travelled down from Sydney to run the Course for the 20 or so Local Agriculture Teachers – have a look on the map to see were local is! – people came from Hillston, Temora, Wagga Wagga, Walla Walla, Goulborn and other places. Sally ran through Animal Welfare and Ethics in a very informative way and also showed the group one way of using ITC in the classroom.

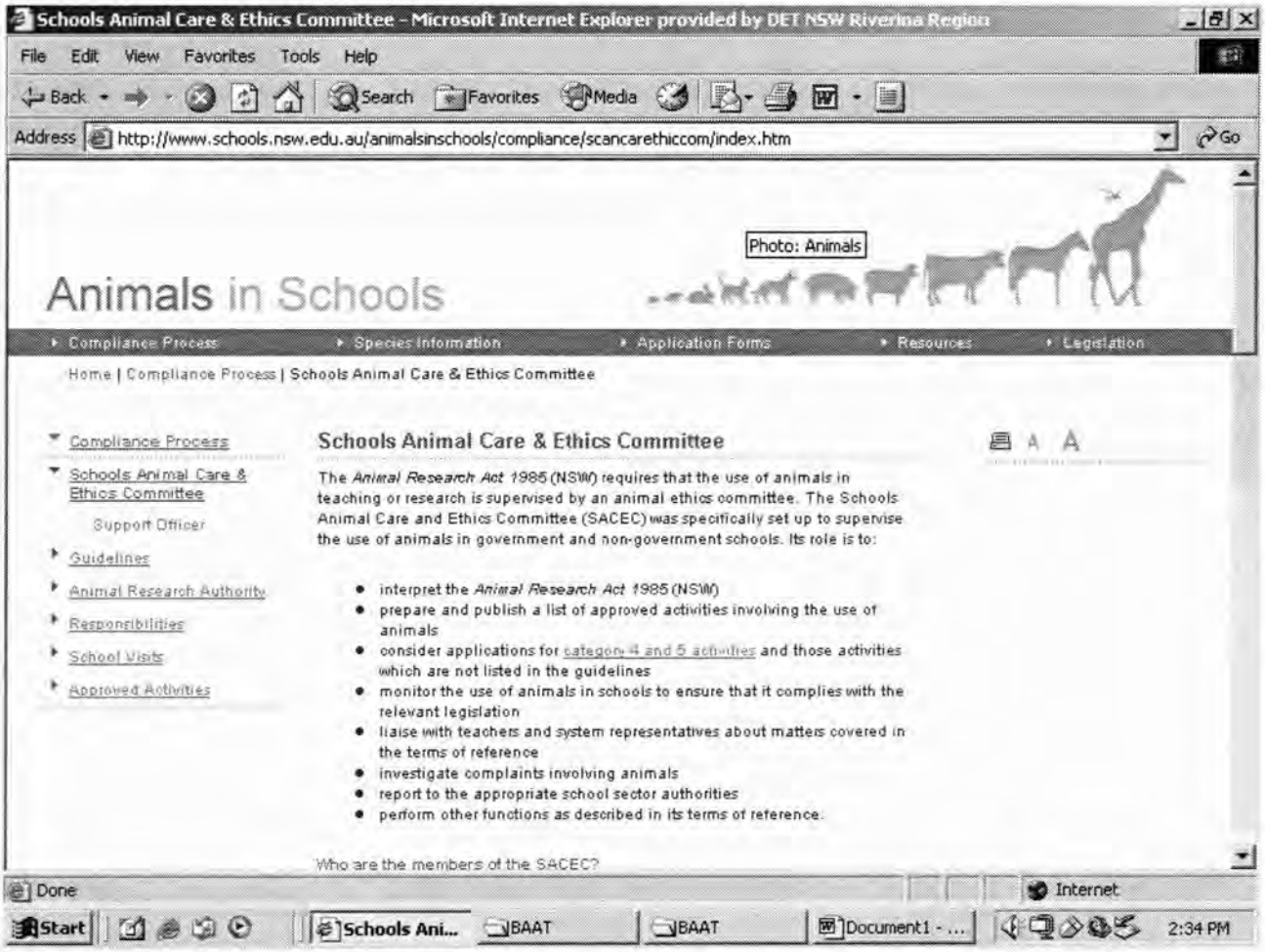
Agriculture in schools follow the Animal Welfare Guidelines and must work in accordance with best practice agriculture. One thing that all Agriculture Teachers must be aware of is that school agriculture is not run as the l;ocal farmer would run it. It is a place for teaching and showing best practices – an example to the students anf the community. In following these principals, Animal Welfare will be well and truly met.

For the new Agriculture teachrs, and even some of us oldies, make sure you keep accurate and precise stock records, Numbers of Stock, Births, Deaths, Sales, Treatments and Husbandry for each and every vertebrate animal under your care. Make sure you have an Animal Welfare Liasion Officer (probably you) appointed and an Animal Welfare Committee in your school. Also you must have an Faculty Policy on Animal Welfare.



Another site you will definitely need.

Sally Bannerman worked through this site with the Ag Teachers who attended the recent Animal Welfare and ITC Conference at Yanco Agricultural High School, Place this on your Favourites.



Animal **Health**

AUSTRALIA

Article 1: Emergency disease - your livestock and what's at risk

Despite advances in disease control and prevention, emergency animal diseases like foot-and-mouth disease (FMD) or bovine spongiform encephalopathy (B SE) are still capable of devastating livestock industries and livelihoods within a few shattering days or weeks.

Australian farmers have an enviable position when it comes to market access for agricultural products, because of our 'clean and green' reputation - however we must be vigilant. A single case of BSE would destroy our reputation and international market access overnight.

Should a FMD outbreak occur in Australia, the economic cost would be an estimated $15 billion, not to mention the devastation to industry and livelihoods. Agriculture employs more than 312,000 Australians — this is an industry worth protecting.

Australia is one of just four countries world-wide to be declared BSE free and while this is an invaluable position to be in, it is a status we must work to protect — and everyone has a role to play from government, to veterinarians to individual livestock producers.

The 2001 FMD outbreak in the United Kingdom, in which 14 million animals were slaughtered, demonstrated the limited defences against highly infectious disease. For Australia, a nation depending heavily on its agricultural sector, FMD and other emergency animal diseases pose a serious threat.

Today, much of our success as an agricultural exporter depends on maintaining that 'clean and green' image. Quarantine is the first line of defence and while Australia is an island continent, this isolation is no longer a barrier to disease.

Australia's precautions against disease outbreak, such as livestock monitoring and vaccines are in place, however nothing can replace an early warning from an alert livestock producer.

People caring for and managing livestock should use a series of straightforward biosecurity precautions to reduce their disease risks. Diseases can be carried by new stock, farm vehicles, visitors, feral animals and pests. Following good livestock farming practices is the best and simplest way to achieving biosecurity — to protect your stock, your profits and your industry.

Putting in place good on-farm biosecurity practices is the best way to guard against the risk of emergency disease:

- New stock — insist on a health declaration, isolate and monitor new stock for a week;
- Feed & water — purchase feed from quality assured suppliers, store to prevent contamination, keep water clean;
- Feral animals and pests — work with neighbours to control feral animals and pests;
- Vehicles and visitors — limit movement and access, be aware of potential contamination from visitors and vehicles.

If you see any unusual disease symptoms or unexpected deaths in your livestock, contact your local vet or call the toll-free Emergency Disease Watch Hotline number — 1800 675 888. Always remember to "Look. Check. Ask a Vet".

Should a potential problem be detected, the national animal health system incorporating a network of laboratories, government and private animal health practitioners, livestock industry groups and localised contacts are able to rapidly work together to deal with the threat.

The experiences of other countries, and our own successes against disease, have provided Australia with strong principles on which to base our strategy against emergency animal disease. But ultimately, should disease enter the country, success in its eradication depends on early warning and co-operation from the livestock industries — largely on the people handling and managing livestock on a regular basis.

Ends.

Editors Note:

For further information on the status of biosecurity or emergency animal disease in Australia, contact Animal Health Australia on 02 6232 5522 or visit the website www.animalhealthaustralia.com.au.

Biosecurity Fact Sheet:

Good livestock farming practices make good sense.

Livestock disease can be catastrophic for farmers and the farming industry through the loss of income and the loss of markets.

Following good livestock farming practices is the best and simplest way to achieving biosecurity – to protect your stock, your profits and your industry.

Q What is biosecurity?

A Biosecurity refers to various management practices that reduce the risk of introducing disease onto your farm. You can protect the future of your farm, and also the wider livestock industry, by recognising the importance of biosecurity in the day-to-day running of your property.

It is in your best interest to ensure that all potential risks are identified and managed. The likelihood of animal diseases occurring can be reduced by conducting routine careful inspections and implementing procedures for isolating new animals and managing visitors, fence maintenance and feral animal control as well as developing a general animal health program.

Q What is a biosecurity plan?

A A biosecurity plan is essentially a set of commonsense principles that you recognise and consider in the daily operations of your property. It is not onerous nor bureaucratic, but is essentially good management practice. The check-list of potential risks (overleaf) is a useful starting point. In addition, your industry association will be able to provide an example of a simple biosecurity plan.

Q How will reporting suspicious signs of disease help me?

A If you see signs of a new or suspicious disease in your stock, it is possible that other animals could be incubating the disease, and control measures should be implemented as quickly as possible to prevent costly losses.

Your report will be taken seriously and the appropriate resources will be applied to investigate the disease – how it got into your stock and how to prevent its spread. Limiting the spread of the disease will save you time and money, and may well protect your industry as a whole.

It is in your interest to promptly report any unusual signs or unexpected deaths in your stock. Failure to do so could result in penalties – and certainly wouldn't be appreciated by your neighbours and others in your industry.

Q Australia has strict quarantine requirements at airports etc. – isn't that enough protection?

A While Australia has enjoyed a marketing advantage because of our freedom from many harmful diseases, we can't assume that this will always be the case. With people, animals and products moving around the world so rapidly, there is an increasing risk of foreign diseases being introduced. This means Australia's quarantine barriers are under increasing pressure, requiring everyone to be vigilant about the threat of disease.

Within Australia, various movement controls also aim to reduce the spread of animal diseases. However, the first and most effective protection for your property and livestock is your own biosecurity plan that identifies and deals with the major risks.

Q Why not just ban all imports of agricultural products?

A Australia is the world's biggest exporter of agricultural products and livestock. Unlike many of our trading partners, the economic health of our agricultural sector relies heavily on export income. Accordingly, Australia has a firm commitment to break down trade barriers and unjustified bans on imports. Banning imports to Australia would seriously damage our ability to export and have disastrous effects.

The best way to reduce disease risks is for all livestock producers to take individual and collective responsibility to protect their industry by implementing appropriate biosecurity arrangements.

Spot the risks on your farm

Use these simple guidelines to help you identify and manage risks.
As you can see – good livestock farming practices make good biosecurity sense.

RISK	MANAGEMENT PRACTICE
Introduction and Movement of Stock	
Introduction of new stock	Only purchase replacement stock from trusted sources
	Insist on a NVD/health declaration and treatment history
	Isolate and observe purchased stock for at least a week
	Obtain advice from your vet on an appropriate animal health program for new stock
Uncontrolled movement of stock	Maintain boundary fences
	Regularly inspect stock for health issues
Vehicles & Visitors	
Entry of contaminated vehicles and machinery	Clean and disinfect any borrowed farm machinery or equipment
	Prevent visitor vehicles from entering paddocks or yards
Contamination from people and working animals	Restrict visitors to a designated general area before allowing onto property
	Ensure visitors and their animals are clean before entering the property and having contact with stock
Contamination from husbandry equipment	Do not share injecting or drenching equipment
Feral Animals & Pests	
Pests and feral animals mixing with your stock	Develop a pest and feral animal control program
	Work with your neighbours to control feral animals
	Minimise feral animal attractants such as rubbish dumps, carcase disposal sites, stockfeed waste
Feed & Water	
Introduction of stockfeed and water	Only purchase stockfeed from trusted and quality sources
	Where possible obtain a Commodity Vendor Declaration (CVD) or a By-product Vendor Declaration (BVD)
Storage of stockfeed and water	Keep storage areas clean, dry and tidy
	Regularly clean out water troughs

If you spot anything unusual in your stock, immediately call your veterinarian, stock inspector or the Emergency Disease Watch Hotline on 1800 675 888.

Look. Check. Ask a Vet. AnimalHealth AUSTRALIA

AnimalHealth AUSTRALIA

Office Use Only	
Date	
Order ID	

Protect Australian Livestock Campaign

ORDER FORM

PRODUCT DESCRIPTION*	PRODUCT CODE	QUANTITY
Extensive Industry Poster (A2)	PALC 200	
Intensive Industry Poster (A2)	PALC 201	
Biosecurity Fact Sheet (A4)	PALC 001	
Southern Beef Cattle Magnet	PALC 002	
Northern Beef Cattle Magnet	PALC 003	
Sheepmeat Magnet	PALC 004	
Wool Magnet	PALC 005	
Goat Magnet	PALC 006	
Chicken Meat Magnet	PALC 007	
Chicken Egg Magnet	PALC 008	
Horse Racing Magnet	PALC 009	
Recreational Horse Magnet	PALC 010	
Dairy Cattle Magnet	PALC 011	
Feedlot Cattle Magnet	PALC 012	
Pork Magnet	PALC 013	
Honey Bee Magnet	PALC 014	

* Refer reverse side for designs

PLEASE PRINT DETAILS

NAME			
POSITION			
COMPANY			
STREET ADDRESS†			
SUBURB		STATE	P/CODE
POSTAL ADDRESS			
SUBURB		STATE	P/CODE
PHONE NUMBER			

† Street address is preferred for delivery of bulk orders.

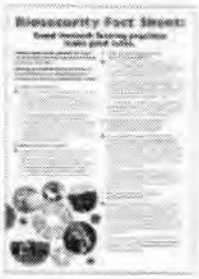
PLEASE COMPLETE AND RETURN BY FAX ON (02) 6260 2770

or email your order to ruth.redfern@seftonpr.com.au

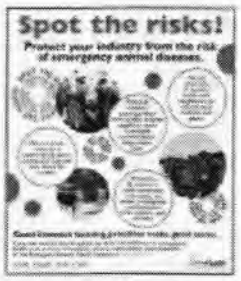
Protect Australian Livestock Campaign – Posters, Fact Sheet and Magnets Order Form.

Extensive Industry
Poster (A2)
PALC 200

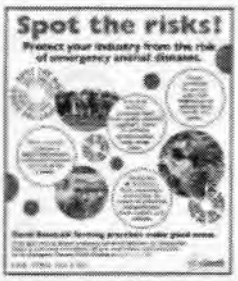
Intensive Industry
Poster (A2)
PALC 201



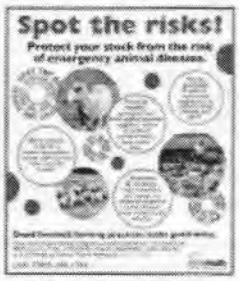
Biosecurity
Fact Sheet (A4)
PALC 001



Southern Beef Cattle Magnet
14 cm X 16 cm
PALC 002



Northern Beef Cattle Magnet
14 cm X 16 cm
PALC 003

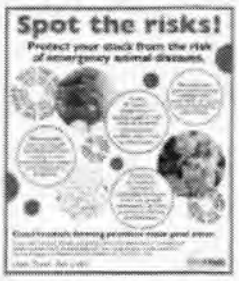


Sheepmeat Magnet
14 cm X 16 cm
PALC 004

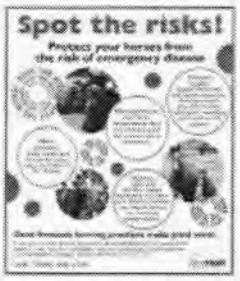
Wool Magnet
14 cm X 16 cm
PALC 005

Goat Magnet
14 cm X 16 cm
PALC 006

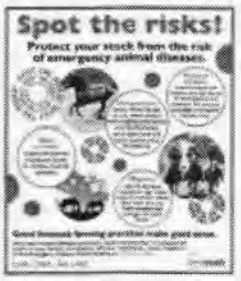
Chicken Meat Magnet
14 cm X 16 cm
PALC 007



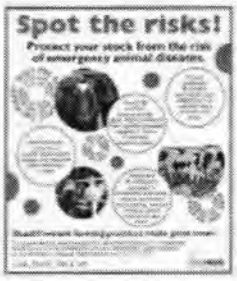
Chicken Egg Magnet
14 cm X 16 cm
PALC 008



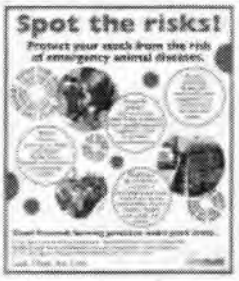
Horse Racing Magnet
14 cm X 16 cm
PALC 009



Recreational Horse
Magnet 14 cm X 16 cm
PALC 010



Dairy Cattle Magnet
14 cm X 16 cm
PALC 011



Feedlot Cattle Magnet
14 cm X 16 cm
PALC 012

Pork Magnet
14 cm X 16 cm
PALC 013

Honey Bee Magnet
14 cm X 16 cm
PALC 014

PLEASE FILL OUT THE FAX ORDER FORM ON THE REVERSE SIDE

Support and I hope you continue its development – even if there is no money!!!!!

The Prac. Teacher Experience

I must say that having prac. Teachers has been one of those wonderful experiences in teaching. It is always a pleasure for me to have any as it takes me back to my first days some 30 years ago. I learn a lot from these new and beginning students and hope that I can impart some of my knowledge and experience to them. One thing I learned from a recent pracie was how useful this particular web site is. Well done Curriculum

This really is a good site to have a play with!!!

Another one for your Favourites

Thanks Stewart McVittie for showing us this site

Reprint from AWI internet article for Agribusiness Elective

Building Demand for Australian Merino Fibre

At the IWTO Conference at Evian last year there was spirited discussion about the "promotion of wool" and R&D, their relative merits and who should pay for each.
Since then we have come a bit further.
I would like to continue that discussion at this conference. For my part there are several messages I would like to share with you today:

1. We at AWI are steadily increasing our research and market development efforts to increase the demand for Australian Merino fibre.
2. Equally, we are still concentrating about half our funds on research aimed at reducing the cost of production of this wonderful fibre on-farm.
3. We have been working with Australian Wool Services, owner of the Woolmark Company and the Woolmark Symbol, to build new products and to expand opportunities to market them.
4. Most importantly, as we announced jointly in February this year, both companies are looking at ways in which we can achieve some form of integration. Disappointingly, over the last two months, this has been somewhat on hold and the reasons for this will become evident in the next few days. However, AWI and AWS will meet tomorrow to speed up this process.
5. Some form of integration with the Woolmark Company allows a very serious discussion about the possibility that an increased proportion of grower levies being invested on market development.
6. As well as all this of course, we have been vigorously defending our industry against attack by animal rightists.

Let me explain our approach to this battle in more detail:
The battle is coordinated by a national taskforce composed of the leaders of the wool industry, the sheep meat industry, Meat and Livestock Australia, the National Farmers Federation and the Australian Government. Make no mistake, this is a battle, they are the enemy, it's a conflict not a conciliation.
We have a multi-faceted approach to dealing with this attack on our industry.
First **we are communicating with as many retailers as possible throughout the world, to make sure they are aware of all the facts**. Most retailers have resisted animal activists and are working with us. It has been hard for some of them but they recognise that capitulating can spell disaster for their brand.
I applaud these retailers, and interestingly and ironically, as a result we have, at AWI, become much closer to many retailers around the world and we will use these contacts to turn a problem into an opportunity.
In the next few weeks we will boost our communication to retailers with advertisements in trade magazines. These advertisements are aimed at decision makers, informing them about the high animal husbandry standards by which Merinos are produced in Australia, exposing some of the untruths told by these animal activists and providing the facts instead.
Our aim is to help retailers protect their brand. You will be pleasantly surprised by the extraordinary high quality of these communications.
Secondly, **we are heavily involved in public relations and communication with media outlets across the globe.** As with many of these issues the pendulum swings from one level of public perception to another over time.
One's fortunes swing in legal cases as well. But one thing is certain, and that is we will finally deal with these people.

Thirdly, **our R&D effort to replace mulesing with a non surgical alternative by 2010** will happen. It may happen earlier than 2010 but no expenditure is being spared to make the technical breakthroughs that will make it happen.

And fourthly there is **the legal case** which we are pursuing out of a sense of outrage that hard working wool growing families who use the best standards of animal husbandry in the world are having their livelihood challenged by a group of extremists who continually break the law. We have continual advice from experienced counsel around the world that we have potential cases against these activists and we will pursue them vigorously.

Now let me turn to AWI's increased research and market development efforts

During the year since Evian AWI has recruited staff who are skilled in textile development and we have allocated additional funds to textile activities.

To guide our research toward the needs of consumers we have looked at each of the market sectors that use Merino fibre, or could use it, and directed our activities to the highest areas of opportunity. For example, Total Easy Care wovens and knitwear, winter to spring fabrics and Supersoft Merino fabrics.

These are just three examples of the dozen or more Marketing Platforms that AWI's General Manager of Textiles, Eric Finnie is using to bring researchers and marketers together with designers, garment makers and retailers. Each Marketing Platform aims to develop products that retailers will put on their shelves.

Much of this work is going on in the UK and Europe in conjunction with The Woolmark Company. In fact, the editorial of the April issue of Wool Record highlights the work done by Eric and Malcolm Campbell, from the Woolmark Company in Ilkley. To quote:

These (marketing platforms) constitute an impressive array of fabric offers which, although not entirely new, when viewed as a whole should make everybody in wool feel good about the future.

Eric Finnie and Malcolm Campbell will describe more of these "Marketing Platforms" today and later in the week.

We have been making a major effort in China, having recently recruited additional staff there to bring the grand total to five.

As our biggest single market we aim to work with some of the world's biggest apparel companies to increase the use of Merino fibre in products sold domestically in China, as well as exports. AWI's General Manager Trade Development, Pascal Senkoff will explain a lot more about this later today.

In the USA, we have made a start, with the establishment of an office next month in New York. For a market that takes 12 per cent of our wool at the upper end of the retail market, this is not before time.

In all of these initiatives, which you will hear about, our success will be measured in sales of fabric and garments by cooperating companies who work with us in research and development of markets for new products.

Why should AWI be doing all this? If we are to succeed in our mission to increase the demand for Australian Merino fibre we must get retailers more interested in our product. Over the past year AWI has worked with many companies and encouraged them to develop new fabrics and garments. In the coming year we want to ensure these products get to the market. Even though we are in discussion with AWS we are as yet unaware of their marketing plans for the reason I mentioned before. We therefore look forward with interest to what Brenda McGahan is going to present this afternoon. I am absolutely certain that AWI and The Woolmark Company will be able to in one way or another combine our market development activities to drive more Merino products onto the shelves of retailers and into the arms of consumers.

We are not talking about old fashioned generic promotion. It is this market development work I believe will be the future of our industry. Let me try to explain this in more detail.

Our Interaction with the Global Merino wool Industry

At AWI we believe, for us in any case, there are three distinct areas of interaction in the global Merino fibre textile business.

The first, Research to Business you are already familiar with. We support creativity (creation of new ideas) and innovation (application of ideas to produce a useful outcome). This involves research into all aspects of processing, distribution, marketing, retailing, etc. The outcomes of this research are new concepts and products, such as, Murata spinning,which we hope will enable cotton spinners to use wool blends, ultra light fabrics for tailoring, nonwovens and Woolfleece - in other words we have to take these research ideas to business.
The second is Business to Business. This is where we work with retailers, garment makers, and designers to develop new fabrics and garments that meet the needs of the market. We then assist in commercialising (bringing to the market) those products. This involves provision of funds for training, prototype production, consumer evaluation, test marketing, consumer research, and market analysis.
This is where the Marketing Platforms that I referred to earlier play a critical role. We are working with over 50 companies now with more to come and the results are starting to flow.
During the meeting of the IWTO Retail Club, later in the week, Eric Finnie and Malcolm Campbell will demonstrate the investment which AWI has made in an attempt to reverse the trend against the use of wool in ladies' fashion.
To the processors in the room, I suggest you join us. Talk to Eric or Malcolm or Pascal about how we can bring products to the market together.
The reason we are doing this is that research must be connected with the end user through the development chain. If we are to develop products with appeal to consumers, staff at AWI who direct the R&D must have very close connections to the market. There must be an active, two way transfer of information from the retailer to developer and back again.
Business to Consumer. Finally, it is obvious to me there's another area that needs consideration and that's business to consumer. For example, in this industry it is absolutely vital that the future of the Woolmark symbol is considered in great detail. We have not been involved in that but no doubt in continuing conversations with The Woolmark Company this will change.
Let me for a minute go back a bit. When I chaired the Future Directions Task Force in 1999 we did not recommend two companies such as we have now. We recommended that Australian Wool Services be one single company, with a research arm and a commercial arm. I am still of the view that that would have been the best solution for the wool industry. The original concept was that one company would deal, for example, with the problem of duplication, the flexible application of levies - let me repeat that, the flexible application of levies - a whole multitude of efficiencies that could be arranged in the interest of one single group of shareholders.
This seemed to us then, to provide a more seamless system from research right through to enabling the industry to put more product on the shelf.
It was with this thought process in mind that Trevor Flugge, Chairman of The Woolmark Company, and I made a joint announcement in February this year that we would look at the options for some form of integration of the two companies.
Obviously in contemplating this matter, it will be the respective shareholders of each company, remembering that they are slightly different and diverging, who will ultimately decide. The role between us now is to develop the business plans and consider the extent to which levy funds should be used for more market development. It is imperative that we resolve these matters by our respective AGMs in November.
Finally I would finish by saying that I am extremely determined that in some form or another these developments I have just mentioned should come about, albeit five years late, and I personally am extremely excited about the prospect.
I have seen the fortunes of this industry wax and wane over 40 years. I don't think anything's different. It's very tough but the one thing that's been constant is that the players, even the changing players, use adversity to conquer many of the problems and I have no doubt this particular time will be no different.

*ABC Landline Date*_____

1. List and summarize the issues covered in the news summary

ISSUE ***SUMMARY***

- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____
- _____ - _____

2. LEADING STORY _____

NOTES:_____

Poultry Revision Sheet Name:

1. Name 4 poultry other then Chickens.

2. Name 2 breeds of chicken used for egg production.

3. What are three advantages and three disadvantages of:

Battery Hens (caged)

Free Range Hens

4. What is Coccidiosis and what are the symptoms

5. Why do chickens need calcium in their diet.

6. Define these terms:

Incubator

Brooder

Cockerel

Broiler

Pullet

Reprint from an Internet Article in SHM

Agriculture

The key to success in the HSC agriculture examination depends on:
- an in depth knowledge and understanding of the course content
- an accurate interpretation of the intent of the questions
- an understanding of what examiners are looking for in your answers.

The questions in the HSC examination are closely related to the syllabus outcomes of the course. The syllabus outcomes can be accessed from the Board of Studies Web site at www.boardofstudies.nsw.edu.au/syllabus_hsc/syllabus2000_lista.html

In order to interpret the questions correctly you must understand the meanings of keywords used in the examination such as "describe" "discuss", "explain", "analyse" and "evaluate". A list of key words and their meanings has been published on the Board of Studies Web site at http://www.boardofstudies.nsw.edu.au/syllabus_hsc/glossary_keywords.html

Your performance in the trial examination provides a valuable insight into your strengths and weaknesses. Did you interpret the questions correctly? Did you allocate your time effectively?

Do you have a good grasp of the course content? Work at improving any weaknesses that became apparent in your trial HSC examination.

Practising questions from past papers is an invaluable experience. The 2001 HSC examination paper, examiners' notes on each question and the marking guidelines can be viewed via the Exams button on the agriculture subject node on NSW HSC Online at http://hsc.csu.edu.au/agriculture/

Practise answering the questions from the 2001 HSC examination paper and use the comments made by the examiners for each question to improve your answers. Use the marking guidelines to mark your own answers. You will note that the highest marks are allocated to those answers that show higher order thinking skills, i.e. answers which incorporate explanations, descriptions, examples, judgments, analysis and interpretations.

The agriculture examination will be held on Thursday October 31 beginning at 1.55pm. There are two papers. All students must attempt Paper 1. Only students who have completed electives should attempt Paper 2.

Paper 1
This is a two-hour paper plus five minutes' reading time. There are three sections in this paper.

Section 1 (allow 40 minutes)
This section comprises three compulsory questions with a number of parts to each question. The questions will focus on the farm/product study; practical work; experimental design and analysis; and ecological and sustainability issues. Stimulus material is often presented in the form of a table, graph or diagram for interpretation and evaluation.

To answer questions on your product study you must have a good understanding in the areas of:
- marketing (strategies, market specification, quality criteria)
- technology and innovation involved in production and marketing
- ways the government and other agencies can intervene in production and marketing
- the financial pressures experienced by farmers
- the sustainability of management practices.

Ensure you are able to provide a calendar of operations and a marketing chain.

This section often includes a gross margin calculation or analysis. NSW HSC Online (http://hsc.csu.edu.au/agriculture/farm_study) has information and activities which relate to gross margins.

You will need to understand the principles for valid experimental design and be able to interpret and analyse experimental data and the design of agricultural experiments.

You should also be able to calculate an arithmetic mean and interpret a standard deviation. Information and sample questions can be accessed at the NSW HSC Online Web site at http://hsc.csu.edu.au/agriculture/production/biometric_ex1/biometr.html and http://hsc.csu.edu.au/agriculture/production/biometric_ex2/biomet2.html

Study any stimulus material carefully before answering questions. Support your answers with evidence from the stimulus material or with other relevant examples.

Section 2 (allow 50 minutes)
This section comprises two compulsory questions which will relate to the plant/animal production component of the syllabus. There are several parts to each question with the latter parts of the question becoming more challenging and requiring higher order thinking skills.

Information and sample questions in relation to the plant/animal production component are available on the NSW HSC Online Web site (http://hsc.csu.edu.au/agriculture/production).

Section 3 (allow 30 minutes)
There are four questions in this section. Students are to choose one question only.

The questions in this section are based on all aspects of the syllabus except the electives and the research project. Each question will require an extended and structured response. This question will be answered in a separate writing booklet.

There are two parts to each question. The first part typically requires a description. The second part requires an evaluation. These questions will allow you to show your knowledge and the extent of your higher order thinking skills. Always offer relevant examples in your answers.

The marks allocated to each part of the question will provide a guide to the amount of time you should spend on your answer.

Paper 2
This is a one-hour paper plus five minutes' reading time..

This paper examines the electives: agribusiness, animal management, horticulture, innovation and diversification, plant management and sustainable land and resource management..

There will be six questions, one from each of the electives. You must attempt only two questions. Each question will require an extended and structured response and is answered in a separate answer booklet. Use the reading time wisely. Underline keywords and think carefully about what you are required to do to answer the question. Use the allocation of marks as a guide to the amount of time spent on each question..

For each of your two electives, ensure you are confident with all features of the research study, especially the methodology and presentation of data. You must understand all the processes involved in each elective as well as innovations employed, and current issues..

The NSW HSC Online Web site (http://hsc.csu.edu.au/agriculture) offers sample questions and answers in relation to each of the electives. The site also provides links to other providers of relevant agricultural information

ISSUES IN AGRICULTURE

- **Students are to form a group of 3 and select one of the below statements (no groups can work on the same statement).**
- **The group is to design an information booklet on the statement. The booklet will contain:**
  - **Definition of statement**
  - **Synopsis (Overview) on Issue**
  - **Points supporting statement**
  - **Points rebutting statement**
  - **Bibliography**
  - **Appendix of relevant articles**

STATEMENTS:

1. Farmers should be made to implement practices such as set aside land and reduce water quotas to improve the quality of the environment.

2. Genetically modified crops should be used throughout agriculture.

3. The Australian government should supply farmers with subsidies to allow them to compete with overseas farmers on the international market.

4. The use of cloning in agriculture will benefit production of a more consistently high quality product.

5. Rural areas should not have access to the same amount of community resources (i.e. doctors, banks, police etc) because rural communities are less populated.

6. Farmers need to be well educated to create more sustainable farming.

MARKING SCHEME

BOOKLET	**MARKING SCALE**	
General		
ξ Spelling And Grammar		/4
ξ Neatness		/4
ξ Organization of Information		/4
ξ Use of References		/4
Synopsis		/10
ξ Clear understanding		
ξ Concise		
Definition of Statement		/5
ξ Key words clarified		
ξ Meaning of statement		
Supporting Statement		/10
ξ Relevant points		
ξ Accurate points		
ξ Valid argument		
Rebuttal Statement		/10
ξ Relevant points		
ξ Accurate points		
ξ Valid argument		
Bibliography		/4
Books/ Magazines		
ξ Name of Author / Editor		
ξ Title		
ξ Year published		
ξ Publisher		
Website		
ξ Address		
ξ Name		
ξ Outline of site		
ξ Date site was hit		
Appendix Articles		/5
ξ Referenced		
ξ Relevant to issue		
Comment	**TOTAL**	**/60**

Murrumbidgee Irrigation

Visitor Program

Presentation Notes

September 2002

This session will give an overview of the water system of the Murrumbidgee Irrigation area, a brief history of the MIA, describe the role and structure of Murrumbidgee Irrigation, summary of regional production, understanding of the future direction.

The Murrumbidgee Irrigation Area (MIA) is a modified landscape engineered by irrigation. The MIA is built around the Murrumbidgee River, but exists as part of a much larger system of integrated rivers and dams.

This diagram identifies the MIA, the Murrumbidgee and Murray Rivers.

Burrinjuck Dam was built on the Murrumbidgee River in 1907 and has a total capacity of 1,026,000 ML. Burrinjuck Dam has been providing water for the MIA since 1912.

The Snowy Hydro Electricity Scheme is considered one of the 7 great engineering feats in the world. The Snowy Hydro Scheme produces renewable energy by harnessing the power of water. This scheme is closely entwined with the irrigation systems in the Murray-Darling Basin.

Eucumbene Reservoir was completed in 1958 and has a storage capacity of 4,798,000 ML – nine times the capacity of Sydney Harbour. Construction immediately began on Tantangara Dam with a view to diverting water from the Murrumbidgee River. Construction was

completed in 1960. Water moves from Tantangara to Eucumbene via an aqueduct.

Water moves from Eucumbene Reservoir to power stations that divert water into the Tumut and Murray Rivers.

Blowering Dam was built in 1968 on the Tumut River to store water for irrigation. Blowering has a capacity of 1,628,000 ML. The Hume Dam has been constructed on the Murray River, but does not play a direct role in our irrigation system.

State Water is the river operating division of the Department of Land and Water (DLWC). State Water manages the release of water from the dams into the rivers. Operating bodies with a licence to draw water from the river place bulk water orders with State Water. State Water evaluates the storage levels of the dam and considers the requirements of licensed users, river health and stock and domestic supplies before releasing water into the river for delivery to users.

The MIA is a gravity fed system of regulators, canals, and channels. Water for our system is diverted from the Murrumbidgee River at Berembed Weir and further downstream at Gogeldrie Weir.

From Berembed Weir water moves into Bundidgery storage which is the start of the system owned and maintained by Murrumbidgee Irrigation.

The next significant point in the scheme is the Yanco regulator. This is a major system split where the Gogeldrie Branch Canal diverts off the Main Canal. The Main Canal feeds the supply channels that bring water to the farm gate. Water is measured onto properties and irrigators pay for the water they use.

From Gogeldrie Weir water is directed to the Sturt Canal and supplies farms on the western side of the MIA.

Drainage water (via Mirrool Creek) flows towards Barren Box Swamp. Water from Barren Box Swamp is recycled into the Wah Wah irrigation supply system.

Barren Box Swamp supplies water to irrigation districts in Benerembah, Tabbita and Wah Wah. Local Governments are also customers within the system. Water from the main canal is filtered and treated for reticulation to urban residents.

The Murrumbidgee River joins the Murray River near Balranald. The Darling River enters the Murray River further downstream, at Wentworth, before crossing the South Australian border where it flows into the ocean at Coorong.

History

Australia was inhabited by Aboriginal people for many thousands of years. The Wiradjuri People made the area around the River we now know as the Murrumbidgee their home. The climate was harsh – hot and dry, fitting the European classification of semi arid. The River provided the Wiradjuri People with a constant source of food and remained unchanged while in their care.

In 1817 Governor Macquarie dispatched a party under John Oxley to find out what happened to the Lachlan River. Did it flow to an inland sea, or discharge its waters to the ocean? Oxley reached a point near the present town of Griffith before turning back. He described the area as

> "a country which for bareness and desolation has no equal. I am the first white man to see it and I think I will undoubtedly be the last. There is a uniformity of barren desolation in this country that wearies one more than I am able to express. One tree, one water and one description of bird, fish and animal progressively alike in ten miles and for one hundred. The variety of wretchedness is at all times preferable to one unvarying cause of pain and distress."

In 1829 Charles Sturt led a party that reached the Murrumbidgee near the present town of Jugiong. They followed the river, passing the present

sites of Wagga, Narrandera and Hay until they met the river Sturt named the "Murray". His impression of the area was also bleak

> "it is impossible for me to describe the kind of country we were now traversing or the dreariness of the view it presented. The plains were still open to the horizon but here and there a stunted gum tree or gloomy cypress seemed placed by nature as mourners of the surrounding desolation. Neither beast nor bird inhabited these lonely and inhospitable regions over which the silence of the grave seemed to reign."

In the 1830s, shortly after Sturt had mapped the River, squatters began to settle the area.

In the 1840s and '50s large numbers of sheep and cattle were moved south from what is now Queensland, and NSW to Victoria. Crossing places on the river became towns – Narrandera and Hay began like this. The land was mostly used for raising Merino Sheep.

Sir Samuel McCaughey bought a property near Narrandera in 1860 and built up a famous Merino stud. The shortage of water held back his work but he overcame the problem by sinking artesian bores and building large earth tanks.

McCaughey bought North Yanko on the banks of the Murrumbidgee in 1899. From a dam and pumping station above his property he built many miles of water channels to irrigate thousands of acres on which he grew lucerne and other fodder crops.

The Commonwealth of Australia came into being on January 1, 1901 when the British Parliament ratified the constitution.

McCaughey was part of a team who lobbied strongly for irrigation. In 1906 the Barren Jack and Murrumbidgee Canals Construction Act was passed. Work on the MIA began immediately.

13 July 1912 the Murrumbidgee Irrigation Areas were officially opened at Yanco by the Hon. Arthur Griffith, Minister for Works. The Water Conservation and Irrigation Commission was then established to take over control of not only the Murrumbidgee Irrigation Scheme but all water conservation and irrigation projects for rural use in NSW.

In 1913 World War I started and significantly impacted the settlement of the MIA. At the conclusion of the war in 1918, the MIA was used in conjunction with the soldier settlement program.

In 1924 rice seed was released for supervised sowing on a commercial basis. The successful production of rice changed the landscape of the MIA forever and has grown to an industry of international standing.

Late in 1929 the effects of the Depression were felt in Australia. World War II followed in 1939 further slowing settlement of the MIA. The MIA received large contracts for food production during the war which saw the local cannery operate 24 hour shifts. Women of the Land Army were called upon to work on food production on the farms.

In 1956 work began on the Snowy Hydro Scheme. Construction was completed on Eucumbene Reservoir in 1958. Tantangara was completed in 1960 and Blowering in 1968.

In 1982 a devastating drought saw less than 2% of water available in the catchment. A temporary system of allocation was introduced based on historical usage and permitted ricegrowing areas

The system was refined in 1983 when the volumetric water allocation scheme was introduced. The scheme was developed to establish shares in whatever water was available. Allocation was based on the farm's Assessed Irrigable Area. This measurement was determined using aerial photos and gazetted areas of existing farms and an amount of megalitres per hectare of Assessed Irrigable Area in particular ratios applied.

In 1989 work began on the development of the Land & Water Management Plan. This is a community developed plan designed to improve the integrated management of land, water and biodiversity. The program is concerned with ensuring the environmental and economic sustainability of the region.

In 1989 the process of separating the management of the MIA from the Government began. This process was completed in 1999 when Murrumbidgee Irrigation became a public company.

Company Structure

Murrumbidgee Irrigation provides water effectively and efficiently to irrigation customers. The role includes water management and pricing, infrastructure maintenance and development as well as environmental stewardship.

Our vision is "to lead the water industry in the successful integration of sustainable irrigated agriculture and natural resource management."

Company shares are held by customers and distributed on the basis of one share for every megalitre of water entitlement. Shareholders have the right to attend member meetings, vote at those meetings and participate in the election of directors.

No dividend can be paid on shares to members.

Shares are divided into three classes: Class A voting – Horticulture over 4 hectares; Class B voting – Large Area and Stock and Domestic/Rural Household over 4 hectares; Class C non voting – others.

The board consists of eight directors. Four Member directors – two Large Area and two Horticulture, plus one Community, one Staff and two Independent Directors. The Chairman is elected by the Member Directors. Each Member Director has a four year term with a maximum of eight years while the term of Non Member Directors is two years with a maximum of six years.

Murrumbidgee Irrigation operates under specific legislation and three licences.

The Irrigation Corporations Act 1994 Operating Licence authorises Murrumbidgee Irrigation to operate and maintain commercially viable systems. The Water Management Works Licence is also issued under the Irrigation Corporations Act 1994 and authorises the use by Murrumbidgee Irrigation of water supply works, drainage works, flood control works, and to take water on behalf of customers. The Pollution Control Licence is issued by the Environmental Protection Authority and enables the business to undertake its activities within certain prescribed environmental guidelines.

Murrumbidgee Irrigation maintains offices in Griffith and Leeton employing in excess of 200 staff.

Regional Production

Large area farmers grow one of, or a combination of rice, corn, wheat and vegetables, prime lamb, wool and beef cattle. The size of their properties range from 200 hectares to 320 hectares. Approximately 55% of large area water is used for rice.

Horticulturists grow one or a combination of permanent crops that may include winegrapes, oranges, lemons, peaches, apricots, grapefruit, cherries, prunes and plums. Their average farm size is 16 to 20 hectares.

The MIA produces almost 20% of the total Australian winegrape production and 70% of the NSW production.

90% of the NSW citrus crop is produced in the MIA which comprises 35% of the Australian crop. Approximately 70% of the Valencia crop and 25% of the Navel crop becomes fresh orange juice, with the remainder sold as fresh oranges.

The area is a major producer of corn, potatoes, tomatoes and carrots.

The gross value of farm production in the MIA is estimated at about $700 million, and average gross farm income about $75 million per year. The non-farm Australian community uses MIA products to earn additional income of about $225 million per year. The MIA therefore indirectly helps to provide employment for over 5,000 Australians, and about $70 million per year to community welfare via tax payments.

MIA EnviroWise

In 1989 our community initiated, and began developing, a Land and Water Management Plan (LWMP) in response to threats to our future sustainability as an irrigation area.

After extensive community consultation the final draft of the LWMP was produced in July 1998 and submitted to the Government appointed LWMP Assessment Team (LWMPAT).

Benefits of the plan were recognised and the cost sharing aspects of implementing the LWMP were negotiated with the State and Commonwealth Governments.

To signify the change from the development phase of the LWMP to the implementation phase, the MIA and Districts LWMP is now known as MIA EnviroWise.

MIA EnviroWise signifies a new beginning in the quest for sustainability.

The MIA EnviroWise goal is to maintain and enhance the sustainability and profitability of agriculture in the MIA & Districts.

The plan's main objectives are:

- ξ To maintain or increase productivity.
- ξ To reduce seepage to the groundwater system.
- ξ To keep drainage water quality within agreed standards.
- ξ To reduce surface drainage volumes to acceptable levels.
- ξ To protect our natural resources.
- ξ To minimise or prevent downstream effects.

Priority actions within MIA EnviroWise work toward one or more of these objectives to achieve the overall goal.

Priority Actions of MIA EnviroWise

MIA EnviroWise has been separated into three major components:

1. On-farm Actions
   Including: Whole Farm Plans, Soil surveys, high tech watering systems, drainage recycling system.
2. Regional Actions
   Including: better forecasting of water demands, floodway control works and pumping from regional drains.
3. Biodiversity Actions
   Including: irrigated woodlots, channel seepage control and planting perennial vegetation.

For the objectives of MIA EnviroWise to be achieved all three components must be implemented.

To support MIA EnviroWise management and reporting arrangements, structural adjustment packages, education & training programs and ongoing research & development initiatives are also being managed.

STUDENT NAME: _____

Yanco Agricultural High School

YEAR 12 AGRICULTURE

EXCURSION BOOKLET 2006

FARM/ PRODUCT CASE STUDY

HSC Course Outcomes

H3.1 assesses the general business principles and decision-making processes involved in sustainable farm management and marketing of farm products.

H3.2 critically assesses the marketing of a plant OR animal product.

H3.3 critically examines the technologies and technological innovations employed in the production and marketing of agricultural products.

H3.4 evaluates the management of the processes in agricultural systems.

CONTENTS **PAGE**

GENERAL INFORMATION

Description

1. Farmer's Name _____

2. Property Name _____

3. Farm Area _____

4. Location of Farm _____

   (a) What is the nearest town to your case study farm? How far out is the farm?

   _____

   (b) Mark its location on the map of NSW below.

5. Labour Force on the Farm (use of family, contractors, farmhand, etc):

   _____

   _____

Physical Characteristics

1. Main Soil Types: _____

   _____

   _____

2. Climate: _____

   _____

   _____

3. Topography (flat/undulating/hilly/etc): _____

_____

_____

4. Vegetation (natural):_____

_____

_____

5. Describe any land degradation problems:_____

_____

_____

_____

_____

6. Describe the management of land degradation problems: _____

_____

_____

_____

_____

7. Relate the current use of the farm to what has occurred in the past: _____

_____

_____

_____

Enterprises

1. List the enterprises conducted on the farm and the products produced from the enterprises: *(Place an **S** beside the products sold off farm)*

	Enterprise	Products
(i)	_____	_____
(ii)	_____	_____
(iii)	_____	_____
(iv)	_____	_____
(v)	_____	_____

2. Why were these enterprises chosen?: _____

_____

_____

_____

_____

_____

Capital Equipment

1. What machinery and equipment does the farm carry?

_____

_____

_____

2. What buildings are on the farm? _____

_____

3. Are contractors used on the farm? (specify which ones): _____

_____

_____

FARMING SYSTEMS

Plant Subsystem

1. List the main plant enterprise/s on the farm.

_____

2. Why have these particular plants been chosen? (eg. Growers expertise, climate)

_____

_____

_____

_____

_____

3. Outline management strategies that improve yields:

Tillage/ cultivation

_____

_____

Weed management

_____

_____

Pest management

_____

_____

Disease management

_____

_____

Fertiliser application

_____

_____

4. What management strategies contribute to more sustainable agriculture?

_____

_____

_____

_____

_____

5. How are the plant products marketed and why was this marketing option chosen?

_____

_____

_____

_____

For ONE of the plant enterprises complete the following questions specific to that enterprise

PLANT ENTERPRISE SPECIFICS

Enterprise: _____

Costs: _____

1. How does the farmer assess the quality of his product?

2. What market criteria does the farmer focus on?

3. How does the farmer determine when the products of these enterprises are ready for marketing?

Animal Subsystem

1. List the animal enterprise/s on the farm.

_____

_____

2. Why have these particular animals been chosen? (eg. Climate, profit)

_____

_____

_____

3. Outline the management strategies the farmer uses to improve production.

Disease management

_____

_____

Breeding management

_____

_____

Feeding management

_____

_____

Parasite management

_____

_____

4. What precautions does the farm manager take to maintain the welfare of the animals?

_____

_____

5. How are the animals or animal products marketed and why was this marketing option chosen?

_____

_____

_____

For ONE of the animal enterprises complete the following questions specific to that enterprise

ANIMAL ENTERPRISE SPECIFICS

Enterprise: _____

Costs: _____

_____

_____

_____

_____

_____

_____

1. How does the farmer assess the quality of his product?

   _____

   _____

   _____

   _____

2. What market criteria does the farmer focus on?

   _____

   _____

   _____

3. How does the farmer determine when the products of these enterprises are ready for marketing?

   _____

   _____

   _____

   _____

   _____

1. Complete the calendar of operations for the farm.

January	**February**	**March**
April	**May**	**June**
July	**August**	**September**
October	**November**	**December**

Explain the timing of the operations for each enterprise:

MANAGEMENT SUBSYSTEMS

Farm Technology

1. List some of the technology used on the farm. (eg: tractor, plough, cultivation, reproduction technology, fences, soil improvements)

_____

_____

_____

_____

2. Technology is used in production and management on the farm and also in marketing farm produce. Give an example of a technology used for each and explain why it is most appropriate technology to use. (i.e. Why is the task done in this way?)

   (a) Production technology.

   _____

   Reason/s this technology is used on the farm.

   _____

   _____

   _____

   _____

   (b) Management technology.

   _____

   Reason/s this technology is used on the farm.

   _____

   _____

   _____

   _____

   (c) Marketing technology.

   _____

   Reason/s this technology is used on the farm.

   _____

   _____

   _____

   _____

Goals of the Farmer

1. What are the goals of your farm case study manager? That is, what plans does the farmer have in the:

   Short-term

   _____

   _____

   _____

   Long-term

   _____

   _____

   _____

2. What sort of things affect decision making on the farm? (eg: market forces, family farm, soil type, more sustainable farming practices, climate)

   _____

   _____

   _____

3. How do farm management strategies affect the achievement of goals?

   _____

   _____

   _____

   _____

4. List the responsibilities and activities of your farmer/ manager.

   _____

   _____

   _____

   _____

Records

1. Tick the type of records your farmer/ manager keeps from the check list below:

- ❑ yields
- ❑ purchased feed
- ❑ rainfall/water use
- ❑ purchase costs
- ❑ gross margins
- ❑ mileage on farm
- ❑ soil fertility
- ❑ soil moisture
- ❑ chemical usage
- ❑ animal treatment records
- ❑ livestock identification system
- ❑ livestock purchase and sale records
- ❑ stock numbers
- ❑ fat test results
- ❑ fertiliser usage
- ❑ other _____

_____

2. Why are these records kept?

_____

_____

3. What management strategies does the farmer incorporate to ensure the right quality is reached for the produced products?

_____

_____

_____

_____

_____

4. What organizations/agencies do they utilize in their production and management?

_____

_____

_____

_____

5. Does the farmer belong to any organisations? _____

If yes list the organizations and the reasons why they are a member of them:

_____

_____

_____

_____

SOCIAL SYSTEMS

Cultural Forces

1. How have the changes in consumer tastes (eg. Leaner meat) affected your farm production?

2. Have changes in overseas marketing affected your farm production? If so, how? If not, why not?

Economic Forces

1. How have the costs of farm production changed in recent years?

2. How has this affected the management strategies and farming goals?

Market Forces

1. How does the farmer get up to date information on prices, markets, etc?

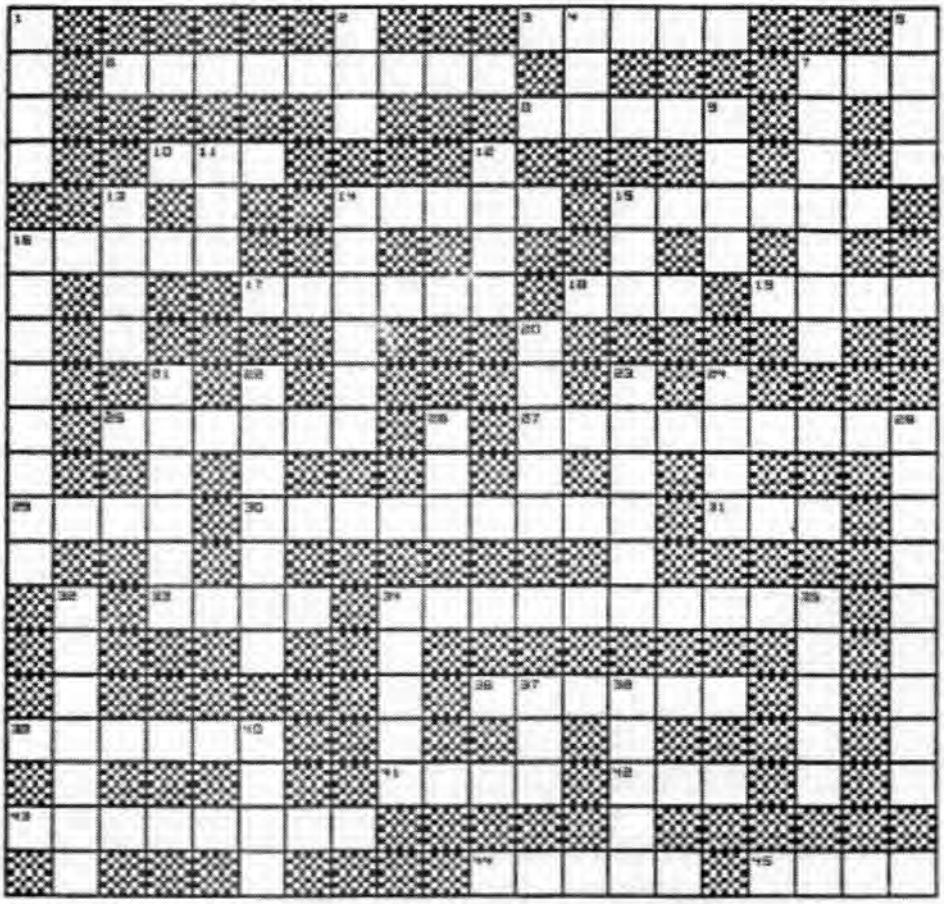
2. How has the market demands changed the products form this farm over the past few years?

3. How has this changed the management on the farm?

NOTES:

NOTES:

POTATO CROSSWORD



ACROSS CLUES

3. TO PUT THINGS INSIDE THE POTATO
6. WHAT YOU DO WHEN YOU ADD FERTILIZER TO THE SOIL
7. A DRINK LIKE COFFEE
8. WE EAT SALAD IN THESE
10. AN ABBREVIATION FOR BARBEQUE
14. POTATOES COOKED IN THE OVEN
15. THE NAME OF A COUNTRY DESCRIBES THESE FRIES
16. COLD POTATOES WITH A MAYONAISE SAUCE
17. ANOTHER NAME FOR CHIPS IN A PACKET
18. THE OPPOSITE TO EVEN
19. THIS IS WHAT HAPPENS TO THE POTATOES AT THE MARKETS
25. POTATOES ARE SMOOTH AND CREAMY WHEN EATEN, IN THIS FORM
27. THE NAME FOR THE SPECIAL SEED POTATOES THAT ARE PLANTED
29. THIS IS REMOVED FROM THE OUTSIDE OF THE POTATO
30. THIS IS WHAT HAPPENS TO THE POTATO IN A PROCESSING FACTORY
31. USED TO KEEP THE SUN OFF YOUR HEAD
33. THE OPPOSITE OF GO
34. THE PROCESS THAT REMOVES THE POTATOES FROM THE GROUND
36. WHAT THIS TOPIC HAS BEEN ALL ABOUT
39. THESE ARE FOUND ON THE POTATO PLANT, AND ARE GREEN
41. THE NAME OF THE POTATO THAT IS PLANTED IN THE GROUND
42. THIS USED TO WRITE WITH
43. POTATOES COOKED IN THE ASHES OF A BBQ
44. A SCIENCE TERM FOR POTATO
45. THIS MAY EAT THE POTATO WHILE IT IS IN THE GROUND

DOWN CLUES

1. YOU CAN DRINK POTATOES WHEN PREPARED IN THIS WAY
2. THIS INSECT ANNOYS YOU IN THE SUMMER TIME
4. BETTER THAN ONE POTATO
5. OFTEN SPRINKLED ON THE TOP OF CHIPS
7. USED TO PLANT LARGE AREAS OF POTATOES
9. POTATOES COOKED WITH MEAT IN THE OVEN
11. THE NAME FOR A YOUNG SHOOT
12. POTATOES MAY BE SOWN IN THESE
13. YOU DO THIS TO COOL HOT CHIPS
14. SPUDS COOKED IN BOILING WATER
15. ANOTHER NAME FOR A CRAZE
16. SLICED SPUDS COOKED IN A BATTER
20. THE PLURAL FORM OF TACO
21. THE SCIENTIFIC NAME GIVEN TO THE POTATO BUSH
22. THE NAME OF THE BAG POTATOES ARE SOLD IN
23. POTATOES ARE SORTED INTO SEVERAL OF THESE BEFORE THEY ARE MARKETED
24. OFTEN EATEN WITH CHIPS
26. THE PART OF THE POTATO WHERE THE SHOOTS AND ROOTS GROW FROM
28. THIS REMOVES THE WATER FROM THE SPUD
32. SOME PEOPLE HAVE THIS LIQUID ON THEIR CHIPS
34. MOUNDS OF DIRT AROUND THE POTATO
35. THIS WILL HAPPEN TO THE SPUDS IF LEFT IN THE SUN
37. A MATURE GRADE OF POTATO
38. THESE FORM ON THE BUSH AFTER THE FLOWERS AND ARE POISONOUS
40. A SLANG TERM FOR THE POTATO

APPLICATION

FOR

MEMBERSHIP

To:
N.S.W. ASSOCIATION OF AGRICULTURE TEACHERS
ABN Number: 81 639 285 642

TITLE: _____ NAME: _____

SCHOOL: _____

PHONE: _____ FAX: _____

EMAIL: _____

POSTAL ADDRESS: _____

_____

MEMBERSHIP FEES:

ξ **1 YEAR** ☐ **$60 (2007)**

ξ **2 YEARS** ☐ **$120 (2007 – 08)**

N.B. Subscription applies for period from January 2007 for either one or two year period.

Subscription Required: _____ Year(s)

Amount Enclosed: $ _____

Please forward completed form with payment to:

Johana McCarthy
Hillsotn Central School
62-80 Moore Street
HILLSTON NSW 2675

Thanks Fully – a page from BAAT No.1 – 1984

ICOSACORNERED CLASSROOM??

How many corners does a classroom have? Does your classroom have a:

* issues in agriculture corner
* newspaper clipping corner
* library assignment corner
* Did You Know? corner
* agratoon corner
* agrilimerick corner
* agriculture design corner
* puzzle corner
* enrichment corner
* agriculture in the environment corner
* agriculture competition corner
* girls in agriculture corner
* computers in agriculture corner
* biography corner
* careers in agriculture corner
* history of agriculture corner
* agriculture words corner
* food and diet corner

or do you teach in a round classroom?

Adapted from material from Bruce Llewellyn (Maths consultant).

CURRENT MEMBERS

Any issues with membership please contact:

Johana McCarthy
62-80 Moore Street
HILLSTON NSW 2675

2006	*2007*	*Other*	*Name*	*School*
		Life	*Tony Barnett '<*	*Walcha Central School*
		Life	*Don Bartholomew*	*Tweed Heads*
		Life	*Tony Butler*	*Tumut High School*
		Life	*Rod Francis*	*Charles Start University: Wagga*
		Life	*Phil Hurst*	*Hawkesbury High School*
		Life	*Peter Jones*	*Chifley College Dharruk*
		Life	*John Lee*	*Glen Innes High School*
		Life	*RobynO'Leary:*	*Finley High School*
		Life	*Norm Robinson*	*Dundoon*
		Life	*Trevor Sewell*	*Gorokan*
		Life	*Jenni'Wilkins*	*Hodroyd High*
		NAAE '	*Andrew Cosby*	*Langwarrin: Vic.*
		NAAE	*Nigel Grant*	*Warwick: Qld*
		NAAE	*Mal Jurgs*	*Meningie: S.A.*
		NAAE	*Lindsay McNeill*	*Cundedin:', W.A.*
✔	✔		Royal Agriculture Society	of NSW
✔			Teacher of Agriculture	Albion Park High School
✔			Teacher of Agriculture.	Goulburn High School
✔			Teacher of Agriculture	Hay High School `
✔			Teacher of Agriculture	James Ruse Ag High School
✔			Teacher of Agriculture '	John Paul College Coffs Harbour
✔	✔	*2008*	Teacher of Agriculture	Kingscliff High School
✔			Teacher of Agriculture	Monaco High School
✔			Teacher of Agriculture	Mudgee High School ·
✔	✔		Teacher of Agriculture	Narooma High School
✔	✔		Teacher of Agriculture	St. Joseph's Aberdeen
✔			Teacher of Agriculture	St Paul's Grammar School Penrith
✔			Teacher of Agriculture	Tomaree High School
✔			Teacher of Agriculture	Toormina High School
✔			Teacher of Agriculture	Wagga Wagga Christian College
✔			Teacher of Agriculture	Wyong High School
✔			Brian	ADAMS
✔			Bryon	ADAMSON
✔			Peter	ALCORN
✔	✔		Bob	ANDERSON
✔	✔		Charles	ANDERSON
✔			Graeme	ANDERSON
✔			Phil	ARMOUR
✔	✔		Attila	BABOS
✔			Karlene	BAILEY

2006	2007	Other	Name	
✔	✔		Ian	BAIRD
✔			Colin	BARKER
✔			Sue	BEHAN
✔	✔		Ian	BISHOP
✔			David	BLOWES
✔			Georgina	BOLAM
✔	✔		Karen	BROOK
✔			Craig	BOURNE
✔			Graham	BRAMLEY
✔			Keith	BROWN
✔			Lisle	BROWN
✔			Shane	BROWN
✔			Ron	BRYANT
✔			Denis	BURNS
✔	✔		Leeta	CRAIGER
✔			Robert	CAIN
✔			Carolyn	CARDEN
✔			Charles	CASSELS
✔	✔		Dale	CHADWICK
✔			Sue	CHALLACOMBE
✔			Megan	CHANDLER
✔			Caroline	CLATWORTHY
✔			Lloyd	CLEAVER
✔			Caroline	COLEMAN
✔			Helen	COLMAN
✔	✔		Ben	COOMBES
✔			Nigel	COX
✔	✔		Ian	CRABB
✔	✔		David	CRICK
✔	✔		David	CROFTS
✔			Elena	DAGHER
✔			Alison	DAHLENBERG
✔			Anita	De La MOTTE
✔	✔		Michelle	DOWSETT
✔	✔		Cameron	DUSTINE
✔			John	EGGLESTON
✔			Guy	FAHEY
✔			Aaron	FLAGG
✔			Greg	FULLJAMES
✔	✔		Ivan	GANT
✔			Cliff	GEORGE
✔			Milton	GOWER
✔			Simon	GRAHAM
✔			Susanna	GREIG
✔			Clinton	GRIBBLE
✔			Neil	GRIFFITH
✔			Stewart	GRIMMETT
✔			Andrew	HARRIES
✔			J	HARRIS
✔			Leonie	HARRIS
✔			Adrian	HARRISON
✔	✔	2008	Ian	HATHERLY

2006	2007	Other	Name	
✔			Colin	HAWTHORN
✔			Stuart	HEMMINGS
✔			Ian	HEFFERNAN
✔			Janet	HOLMES
✔			Peter	HOOD
✔	✔		Sue	HOPE
✔			Mark	HOPKINS
✔	✔	2008	Peter	HUMPHRIES
✔			Stuart	IRWIN
✔			Lachlan	JAMES
✔			David	JOHNSON
✔	✔		Kennedy	JONES
✔			Ian	JUDD
✔			Joan	KEIGER
✔	✔		Howard	KENNEDY
✔	✔		Pru	KESBY
✔			Graeme	KIDD
✔			John	KILLEN
✔			Kristina	KING
✔			Ilka	KEPPLER
✔			Steve	LANGMAN
✔			Judy	LAWSON
✔	✔		Lynne	LEOTTA
✔			Adam	McCRAE
✔			Greg	McALPINE
✔			Lisa	McCALLUM
✔	✔		Lynda	McCALLUM
✔			Angela	McCANN
✔			Patrick	McCANN
✔			Johana	McCARTHY
✔			Terry	McGOLDRICK
✔			Linda	McCOLL
✔	✔		Ross	McGREGOR
✔			Jacqueline	McINTOSH
✔			Owen	McLAUGHLAN
✔	✔		Allan	McMILLAN
✔	✔		Maryann	McRAE
✔	✔	2008	Bruce	MANKTELOW
✔	✔	2008	Jennifer	MANNA
✔			Philip	MATAR
✔	✔		Peter	MATUS
✔			Mike	MELINO
✔			David	MULLER
✔			Peter	NAPIER
✔	✔		Simone	NEVILLE
✔			Trevor	NEWMAN
✔			Craig	O'BRIEN
✔			Lisa	O'BRIEN
✔			Philip	OLIVER
✔	✔		Ardian	PALMER

2006	2007	Other	Name	
✔			Belinda	PINE
✔			Graham	QUINTAL
✔			Stephen	RAWLINSON
✔			Leisl	REDMOND
✔			Rosemary	REILLY
✔			Dave	ROBINSON
✔	✔		Peter	ROBINSON
✔	✔		Warwicke	ROLFE
✔			Brian	SAWYER
✔			Brett	SHAROCK
✔	✔		Warwick	SHAW
✔			Alex	SKLADNEV
✔			Jade	SMITH
✔			Paul	SMITH
✔			Peter	SMITH
✔			Geoff	SPENCE
✔			Mandy	STATHAM
✔			Janet	SWAN
✔	✔		Vanessa	TAYLOR
✔			Brian	THOMAS
✔	✔	2008	Ian	THOMPSON
✔			Stephen	TRICKETT
✔			W.	VANRYSWYK
✔			Peter	WEARNE
✔			Gary	WEBB
✔			Michelle	WEBB
✔			Nicolet	WESTERHOF
✔	✔		Wayne	WHALE
✔	✔		Rick	WHEATON
✔	✔		Doug	WHITE
✔			Richard	WHITE
✔			Gary	WINTER
✔			Paul	WITHERS
✔	✔		Beth	WORTHY
✔			Ron	VICTOR
✔			Jan	YOUNG

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