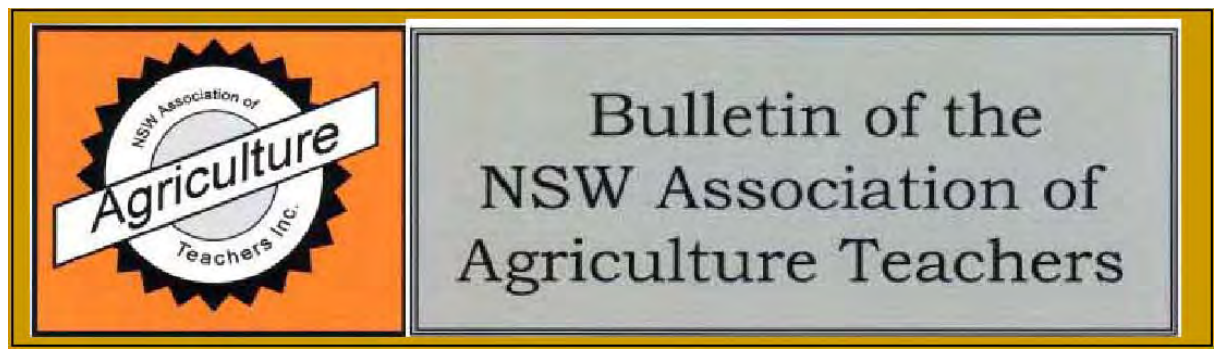




2012



It's All About Networking as its NSW AAT Conference Time!!!

Look Out as We are Coming to TOCAL!!!

N.S.W. Association of Agriculture Teachers Inc



President:

Graeme Harris
Farrer Memorial Agricultural High School
Calala Lane
Tamworth, NSW 2340
02 6764 8660 (w)
02 67 648 669 (f)
graeme.harris@det.nsw.edu.au

Secretary:

Nicolet Westerhof
Elizabeth Macarthur High School
Narellan, NSW 2567
02 4646 1899 (w)
02 4647 1569 (f)
nicolet.westerhof@det.nsw.edu.au

Treasurer:

Laura Tolley
Farrer Memorial Agricultural High School
Calala Lane
Tamworth, NSW 2340
02 6764 8660 (w)
02 67 648 669 (f)
treasurer.nswaat@gmail.com

Technology & Communication:

Ian Baird
Murrumburrah High
Murrumburrah NSW
02 9484 5732 (w)
webmaster.nswaat@gmail.com

BAAT Crew:

Carl Chirgwin
Griffith High School
Coolah St,
Griffith, NSW 2680
carl.chirgwin1@det.nsw.edu.au

Jade Smith
Dunedoo Central School
Digilah St
Dunedoo, NSW 2844
jade.smith7@det.nsw.edu.au

Justin Connors
Manilla Central School
Manilla, NSW 2346
justin.connors@det.nsw.edu.au

www.nswaat.org.au

www.nswaat.org.au

ABN Number: 81 639 285 642



1. From the Dam
2. Presidento
3. Membership Muster & Current List
4. 2010 Reflections & Laughs
5. NSW AAT Conference
6. What You Get?
7. NAAE 2014
8. 21st Century
9. Ag Science Awards
10. PIEF Update
11. 1st in 2011
12. VC's
13. Poultry Hubbing
14. AG-CAP's
15. Agriculture Education Review
16. Olssons
17. Mountain Sheep
18. What's Happen'ng in My School
19. Cows Create Careers
20. TOCAL Topic
21. Ag Vision
22. PICSE
23. Online Resources
24. The Oil's & Short Memories!

“FROM THE WATER IN THE DAM”



-An email sent a few weeks back telling that a quick fire BAAT is in order has not eventuated as this edition is choc-a-block full of resources and contacts to assist you in the world of agricultural education.

-BAAT No. 40 did say life was going to begin – and I can tell you it has sprung into life. Some more spring rain in the high country is defiantly needed as harvesters roll out across the state to get the ‘big crop’ off and into the bin.

-Agricultural education is under review – a good review though, unlike the agricultural fallout of the MDBA Plan – please have a good read of the work compiled by Jim Prately (Deans Council of Australian & CSU) and make a submission before the **23rd November**. The whole paper and an template is included in this edition.

-The Canberra Agricultural Teachers Association continues to work side by side us and they are all invited to our NSW AAT Conference in Jan. Did I say a conference??? Yes it is conference time and I hope to see you there in my shirt and deck chair. There is NOT ONE PPT in sight!!!

-The planning is well underway for the next National Association of Agriculture Educators come mid Jan 2014 – over the ditch in New Zealand. NSW AAT members will receive and incentive to attend this being a NSW AAT State Representative – so please get you membership up to date.

The BAAT Crew – Carl Chirgwin (Griffith High School), Jade Smith (Dunedoo Central School) & Justin Connors (Manilla Central School) have enjoyed compiling NSW AAT work over the past 4 years and look forward to continuing our work with the new executive come Jan 2013.

The Mechanics
of NSW AAT

Tread off the tyres here



We there
yet?

The Super Bus!!!

President's Report

Lots has been happening and all very important components to the future of Agriculture and Agricultural Education in NSW.

1. Prof Jim Pratley is conducting an inquiry into Agricultural Education in NSW. This is very important and has the potential to determine the course of Agricultural Education in NSW for many years to come. Please make a submission. The more submissions they receive the better and the more valid the review will be deemed to be. I will be circulating some preliminary personal thoughts and hope that the various networks can have robust discussions and make submissions. Jim also has been making a number of visits and conducting public meetings. He has also engaged an advisory panel of which I am one member.

2. ACARA continues its rollout of national curricula and the TAS curriculum is in the writing phase. A national Advisory Panel is reviewing the work of the writers however, like all large committees the views of a couple of individuals may not necessarily be accepted. Andrew Cosby (NAAE President) and myself are on this panel.

3. A new organisation called the National Agribusiness Education Skills and Training Taskforce (NEST) has been gaining some traction nationally in advising government on how to promote agriculture and meet future skills need. I have represented NAAE and NSWAAAT on a couple of these meetings

4. Stuart Hemmings has been appointed to the board of the Primary Industries Education Foundation that NAAE helped set up and is a contributing member. Congratulations here Stu!!!

5. Nicolet Westerhoff was the successful recipient of the NAB Premiers Teachers Scholarship. Congratulations and thanks to all those who lobbied their local members etc when this was cut. I know that Nicolet is excited and will be busting to tell us about her trip and study in a future BAAT. Special thanks must go to the teachers who at very short notice made applications. I really appreciated your support and apologise for phoning and pestering you to make a submission. Please start NOW preparing your application for next year. It takes time but is worthwhile and you may have to finesse it a couple of years until it is of a standard suitable to the judges.

6. Looking forward to seeing you at the Biennial Conference at Tocal – details in this BAAT.

7. Congratulations to all who have had year 12 students, for your persistence and preparedness to do that extra bit to help them get the mark they deserve. Thanks also to the markers who will be working hard to ensure every child has their chance to gain the marks they deserve as well. Country marking this year has moved to Wagga Wagga and will be Stephen Trickett's last year as SOM. Congratulations on a job well done.

8. Remember that January 2014 will be NAAE conference in NZ!!

9. I have been on LSL in Vanuatu and look forward to going back again. I missed Ian Baird by a few days.

Thanks to you all for your support over the last two years as President and I look forward to passing on the reigns to another person at the conference to continue the great organisation that is NSWAAAT. Thanks to individuals will be given in my report to conference.

Graeme Harris – President off NSW AAT 2010-2013

N.S.W. Association of Agriculture Teachers Inc



President:

Graeme Harris
Farrer Memorial Agricultural
High School
Calala Lane
Tamworth, NSW 2340
02 6764 8660 (w)
02 67 648 669 (f)
graeme.harris@det.nsw.edu.au

Secretary:

Nicolet Westerhof
Elizabeth Macarthur High
School
Narellan, NSW 2567
02 4646 1899 (w)
02 4647 1569 (f)
nicolet.westerhof@det.nsw.edu.au

Treasurer:

Laura Tolley
Farrer Memorial Agricultural
High School
Calala Lane
Tamworth, NSW 2340
02 6764 8660 (w)
02 67 648 669 (f)
treasurer.nswaat@gmail.com

Technology & Communication:

Ian Baird
Murrumburrah High
Murrumburrah NSW
02 9484 5732 (w)
webmaster.nswaat@gmail.com

BAAT Crew:

Carl Chirgwin
Griffith High School
Coolah St,
Griffith, NSW 2680
carl.chirgwin1@det.nsw.edu.au

Jade Smith
Dunedoo Central School
Digilah St
Dunedoo, NSW 2844
jade.smith7@det.nsw.edu.au

Justin Connors
Manilla Central School
Manilla
NSW 2346
justin.connors@det.nsw.edu.au

www.nswaat.org.au

www.nswaat.org.au

ABN Number: 81 639 285 642

2012

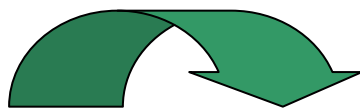
The Association needs **YOU** to become a financial member.

To maintain the viability of the Agriculture Teachers Association in NSW & allow the executive to address the issues confronting education we require your financial support by you becoming a financial member.

Do not delay; send your completed membership form & payment to the **treasurer:**

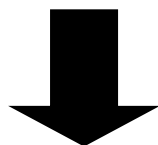
Laura Tolley
Farrer Memorial
Agricultural High
School
Calala Lane
TAMWORTH
NSW 2340
Phone: 02 6764 8660
Fax: 02 67 648 669





**A
g

M
e
m
b
e
r
s
h
i
p**



TREASURER

Laura Tolley
FMAHS
Calala Lane
TAMWORTH
NSW 2340

From the President's Desk:

Membership of the Association

^ Membership fees to the NSW Association of Agriculture Teachers are now due:

If you are:

- *not financial or*
- *a new graduate or*
- *your membership status has elapsed*

& you require

- *Resources.*
- *Aggie contacts.*
- *Information on Agriculture Teachers conferences.*
- *Assistance in your professional duties.*

**COMPLETE THE
"APPLICATION FOR
MEMBERSHIP"
FORM ON THE
NEXT PAGE
&
SEND TO THE
ASSOCIATION'S
TREASURER WITH
YOUR PAYMENT.**

then you need to join the Association to assist in maintaining:

- *the Association's strength & support across the state,*
- *the place of your subject in the school curriculum,*
- *networking throughout the state,*
- *delivery of a BAAT twice a year,*
(Bulletin Association of Agriculture Teachers)
- *your say in Agriculture & PI teaching issues,*
- *access to professional readings,*
- *use of nswaat.ning.com for resource sharing.*

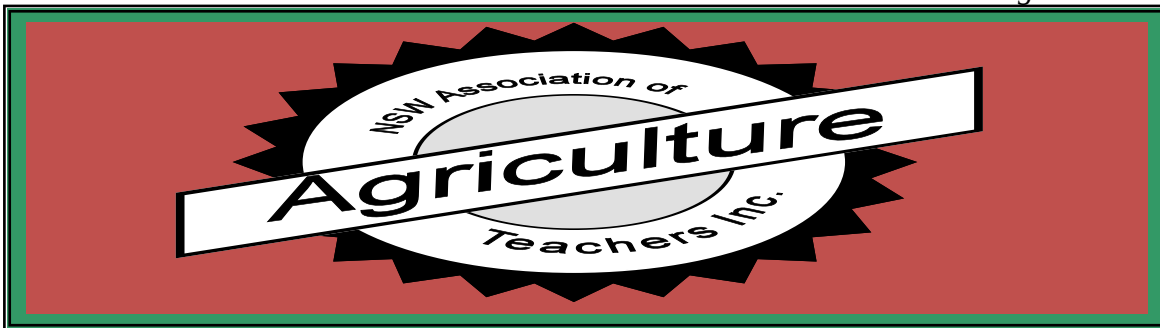
NSWAAT WEBSITE

www.nswaat.org.au

Please visit the website and catch up on what has been happening.

There are lots of photos from the Biennial Conference and many resource links to assist your teaching of Agriculture and Primary Industries.

[Please use nswaat.ning.com](http://nswaat.ning.com)



THE N.S.W. ASSOCIATION OF AGRICULTURE TEACHERS

TITLE: _____ NAME: _____

SCHOOL: _____

PHONE: _____ FAX: _____

EMAIL: _____

POSTAL ADDRESS: _____

Post Code: _____

MEMBERSHIP FEES:

* 1 YEAR: _____ \$60 (2013)

* 2 YEARS: _____ \$120 (2013-14)

N.B. Subscription applies for period from January 2013 for either one or two year period.

Subscription Required: _____ Year(s)

Amount Enclosed: \$ _____

Direct Deposit Option: To pay via direct deposit, please post this membership form and use the following details for internet banking transfers.

BSB: 082 939

Account Number: 63975 7522

Reference: Your name and "membership".

Please forward completed form with payment to:

Laura Tolley

Farrer Memorial Agricultural High School

Calala Lane

Tamworth NSW 2340 treasurer.nswaat@gmail.com

"The NSW Association of Agriculture Teachers is not registered to collect GST"



Membership

- Current Association Membership List

31/10
2012

Valid Until End of:	Given Name	Surname	School
Associate	Sally	BANNERMAN	SACEC
Lifetime	Ian	BAIRD	Murrumburrah High School
Lifetime	Tony	BARNETT	Walcha Central School
Lifetime	Don	BARTHOLOMEW	
Lifetime	Lisle	BROWN	
Lifetime	Tony	BUTLER	Tumut High School
Lifetime	Peter	CRICK	Muswellbrook High School
Lifetime	Rod	FRANCIS	Charles Sturt University
Lifetime	Phil	HURST	Hawkesbury High School
Lifetime	Peter	JONES	Windsor High School
Lifetime	John	LEE	Glen Innes High School
Lifetime	Robyn	O'LEARY	Finley High School
Lifetime	Norm	ROBINSON	
Lifetime	Trevor	SEWELL	
Lifetime	Jenni	WILKINS	Birrong Girls High School
Lifetime	Gail	ROBERTS	James Ruse Agricultural High School
Associate	Howard	KENNEDY	NSW BOS
Associate	NSW RAS	RAS	Sydney Olympic Park
Associate	Nigel	GRANT	The Scots PGC College (QLD)
Associate	Tracy	SOWARD-AMALIFI	Sarina State High School (QLD)
Associate	Mandy	LINDSAY	Atherton State High School (QLD)
Associate	Alysia	KEPERT	Agriculture Curriculum Consultant (WA)
Associate	John	AGNEW	Naracoorte High (SA)
Associate	Mat	EVANS	Snowtown Area School (SA)
Associate	Stu	HEMMINGS	Office of Schools (NSW)
Associate	Andrew	COSBY	Elisabeth Murdoch College (VIC)
Associate	Andrew	JOK	Nhill College (VIC)
Associate	Sam	BRETNALL	Lake Tuggerong College (ACT)
Associate	Cameron	ARCHER	Tocal College (NSW)
Associate	Ben	STOCKWIN	PIEF (ACT)
Associate	Amy	COSBY	UNE (NSW)
Associate	Emma	WORDSWORTH	PISCE via CSU (NSW)
2013	Teacher of Ag		Bomaderry High School
2012	Teacher of Ag		Broken Hill High School
2011	Teacher of Ag		Camden High School
2013	Teacher of Ag		Colo High School
2012	Teacher of Ag		Genesis Christian College
2013	Teacher of Ag		Griffith High School
2013	Teacher of Ag		Koorringal High School
2011	Teacher of Ag		Lisarow High School
2011	Teacher of Ag		Lithgow High School
2012	Teacher of Ag		Mendooran High School
2012	Teacher of Ag		Mudgee High School
2012	Teacher of Ag		Primary Industries Centre, Wagga
2011	Teacher of Ag		St Francis College, Leeton
2013	Teacher of Ag		St Joseph's College
2013	Teacher of Ag		The Riverina Anglican College
2011	Teacher of Ag		The Scots School Albury

2013	Teacher of Ag		Toormina High School
2011	Teacher of Ag		Wauchope High School
2013	Teacher of Ag		Wingham High School
2011	Teacher of Ag		Wyong High School
2012	Teacher of Ag		Young High School
2013			Australian National Field Days
2012	Andrew	ABERCROMBIE	Galston High School
2011	Brian	ADAMS	Lithgow High School
2012	Bryon	ADAMSON	Corowa High School
2012	Mufutau Afolabi	NASIRU	Sarasas Witaed Suksa School
2012	Gonzalo	ARMAS	Henry Kendell High School
2013	Phil	ARMOUR	Yass High School
2011	Billinda	AULD	La Salle Academy
2012	Vicki	AUSTIN	Terrigal High School
2011	Fiona	BAILEY	Musselbrook High School
2012	Carolyn	BAKER	The Henry Lawson High School
2012	David	BAKER	St Gregory's College
2012	Naomi	BAKKER	Hay War Memorial High School
2012	Norm	BALZER	Casino High School
2011	Barbara	BANNISTER	XSEL Virtual Selective High School
2011	Colin	BARKER	Lyndhurst
2013	Diana	BEALE	Tumut High School
2011	Susan	BEHAN	Denison College-Kelso High School
2011	Paul	BOON	Macarthur Girls High School
2012	Phill	BOOTH	Henry Kendall High School
2012	Craig	BOURNE	Singleton High School
2011	Sheree	BOURKE	Menai High School
2011	Graham	BRAMLEY	St Paul's College, Kempsey
2012	S	BRENNAN	John Paul College
2011	Louisa	BRIGGS	Brisbane Waters Secondary College
2010	Jacqui	BROOKSBY	Student Teacher
2012	Eddie	BUCKINGHAM	Mullumbimby High School
2013	Diana	BURGE	Student Teacher
2011	Tracey	BURTON	Plumpton High School
2013	Lynda	BUTTSWORTH	Jamieson High School
2013	Jennifer	CAINES	Mount Annan Christian College
2011	Melanie	CAMPBELL	Moree Secondary College
2011	Sheena	CARTER	Student Teacher
2012	Hannah	CASKEY	Wee Waa High School
2012	Dale	CHADWICK	Gundagai High School
2011	Megan	CHANDLER	Narara Valley High School
2012	Carl	CHIRGWIN	Griffith High School
2010	Caroline	CLATWORTHY	Macquarie Fields High School
2011	Peter	COLLETT	Tenterfield High School
2010	Nikia	COLLINS	Hillston Central School
2012	Helen	COLMAN	Molong Central School
2013	Justin	CONNORS	Manilla Central School
2012	Ben	COOMBES	Peel High School
2011	Nigel	COX	Singleton High School
2011	Ian	CRABB	Queanbeyan High School

2011	James	CRONIN	Hennessy Catholic College
2011	Elena	DAGHER	Bossley Park High School
2011	Anita	DE LA MOTTE	Bomaderry High School
2010	Gerard	DELANY	St Columba's High School
2012	David	DRURY	Waldobo Community School
2010	Christine	DUVER	Student Teacher
2012	Claire	DUGGAN	Student Teacher
2011	Nicole	DWYER	Gloucester High School
2011	Rachel	EAGLES	Forbes High School
2012	Susan	EARL	Red Bend Catholic College
2012	Max	EDEN	Taree High School
2011	Cameron	ELLISON	McAuley Catholic School Tumut
2012	Bryce	EVLENSTEIN	Taree High School
2012	Sarah	EYB	James Sheahan Catholic High School
2011	Guy	FAHEY	Albury High School
2011	Ian	FAWBERT	Northholm Grammar School
2010	Leanne	FERGUSON	All Saints College, Bathurst
2012	Megan	FINNIMORE	Batlow Technology High School
2010	Mark	FISHER	Walcha Central School
2012	Rob	FORSBERG	St Joseph's College
2011	Ivan	GANT	Hunter Central Coast Regional Office
2010	David	GELL	Anson St School, Orange
2010	Cliff	GEORGE	Peak Hill Central School
2011	Gennie	GITTOES	NSW Farmers
2011	Helen	GLOVER	Macarthur Anglican School
2013	Milton	GOWER	Macarthur Anglican School
2012	Melissa	GRABHAN	Ashford Central School
2011	Richard	GRANT	James Ruse Agricultural High School
2012	Neil	GRIFFITH	Irrawang High School
2012	Stuart	GRIMMETT	Woodenbong Central School
2010	Nicky	GUNNING	Junee High School
2011	Graeme	HARRIS	Farrer Memorial Agricultural High School
2011	Leonie	HARRIS	Frensham
2011	Adrian	HARRISON	St Gregory's College
2012	Lois	HARRISON	Merriwa Central School
2012	Ian	HATHERLY	Kinross Wolaroi School
2011	Colin	HAWTHORN	Red Bend Catholic College
2010	Ian	HEFFERNAN	Dapto High School
2013	Robert	HENDERSON	Tomaree High School
2010	Stuart	HILL	Pennant Hills High School
2012	Michael	HOLLAND	Scone Grammer School
2011	Sue	HOPE	Goulburn High School
2011	Mark	HOPKINS	Bega High School
2011	Kristina	HOSTEN	Bossley Park High School
2013	Peter	HUMPHRIES	Deniliquin High School
2013	Judith	ING	Student Teacher
2013	Maqsood	IQBAL	St Johns Park High School
2013	Grant	JACKSON	Gosford High School
2012	Charlie	JAMES	MaCarthy Catholic College
2011	David	JOHNSON	James Fallon High School
2013	Karen	JOHNSTON	James Ruse Agricultural High School

2012	Ken	JONES	Blayney High School
2010	Ian	JUDD	Kyogle High School
2011	Prue	KESBY	St Mary's College, Gunnedah
2011	John	KILLEEN	Bossley Park High School
2010	Ilka	KLEPPER	Cootamundra High School
2011	M	KOLLER	Nagle College
2010	Tracey	LEE	Albury High School
2012	Ian	LEES	Ulladulla High School
2011	Adam	MACRAE	Coonamble High School
2010	Scott	MACKENZIE	GRC Penshurst Campus
2010	Steve	MAGINNITY	Alstonville High School
2013	Hayley	MAHONEY	Picton High School
2013	Bruce	MANKTELOW	Scone High School
2011	Jenni	MANNA	St. Joseph's College
2010	Diana	MARTIN	Murwillumbah High School
2012	Julie	MASLIN	West Wyalong
2012	Peter	MATUS	The Scots School
2013	Kaliya	MAXWELL	Student Teacher
2011	Samantha	McAULIFFE	Mount View High School
2012	Patrick	McCANN	Flinders Christian Community High School
2012	Peter	McCANN	St Josephs College
2011	Ross	McGREGOR	Hurlstone Agriculture High School
2012	Denise	McHUGH	McCarthy Catholic College
2012	Jacqueline	McINTOSH	Crookwell High School
2013	Richard	McKAY	Farrer Memorial Agricultural High School
2011	Owen	McLAUGHLAN	Canowindra High School
2011	Jock	McLAURIN	Yeoval Central School
2013	Paul	McLEAD	Wellington High School
2011	Allan	McMILLAN	Wagga Wagga High School
2011	Maree	McNEIL	Shoal Haven High School
2012	Stuart	McVITTIE	Gunnedah High School
2013	Mick	MELINO	St Johns College
2011	Luciano	MESITI	Student Teacher
2012	Christina	MIKAN	St Ignatus
2010	Tim	MINEHAN	Young High School
2010	Fiona	MULHALL	Chevalier College
2012	David	MULLER	St John Evangelist Catholic High School
2011	Rochelle	MUTTON	Mackillop College
2010	Peter	NAPIER	Orange High School
2011	Simone	NEVILLE	Tuggerah Lakes Secondary College
2010	Trevor	NEWMAN	Nowra High School
2010	Bronwyn	NIELSEN	Calrossy Anglican School
2012	Steven	NOAKES	Kadina High School
2010	Steven	NOTT	Carinya Christian School
2011	Craig	O'BRIEN	Moss Vale High School
2010	Nicole	O'BRIEN	Chevalier College
2012	Richard	O'CONNELL	Mater Dei Catholic College
2011	Benjamin	O'LEARY	Rutherford Technology High School
2012	Phillip	OLIVER	Georges River High
2010	Fiona	PAIN	Student Teacher
2012	Emily	PEARN	Deniliquin High School

2011	Cathy	PERRI	Wollondilly Anglican College
2011	Gavin	PRICE-JONES	The Rock Central School
2011	Georgina	PRICE	Coleambally Central School
2013	Graham	QUINTAL	Finally Retired!
2012	Darren	RADFORD	Oxley High School
2011	Renato	RAMSAY	Sydney Distance Education High School
2010	Stephen	RAWLINSON	Pittwater High School
2012	Emma	RILEY	Baradine Central School
2012	Paul	ROSS-NEW	Kingswood High School
2010	Katie	ROWE	Gulargambone Central School
2012	David	SAUNDERS	Orana/Coffs Harbour
2011	Dani	SAXON	Cranebrook High School
2011	Maryann	SCHILLER	Hennessy Catholic College
2010	Nadine	SIBBALD	McCarthy Catholic College
2011	Nicole	SIMMONS	Student Teacher
2012	Natasha	SHANKELTON	Tullamore Central School
2010	Warwick	SHAW	Woodenbong Central School
2012	Paul	SMITH	Cowra High School
2012	Jade	SMITH	Dunedoo Central School
2013	Deb	SNAITH	Macintyre High School
2010	Geoff	SPENCE	Brisbane Waters Secondary College
2010	Stuart	STOUT	Leeton High School
2011	Jane	SWAN	Dapto High School
2012	Jessica	TATE	Menindee Central School
2012	Vanessa	TAYLOR	Mulwaree High School
2012	Leigh	THATCHER	Pittwater High School
2010	AJ	THOMAS	Armidale High School
2012	Laura	TOLLEY	Farrer Memorial Agricultural High School
2012	Stephen	TRICKETT	Billabong High School
2011	Katie	TWOMEY	McAuley Catholic College
2012	Ron	VICTOR	Morisset High School
2010	Tracey	WATSON	Student Teacher
2012	Nicolet	WESTERHOF	Elizabeth MacCarthur
2012	Gary	WEBB	Finley High School
2012	Allison	WELLS	Barker College
2012	Wayne	WHALE	St Paul's College, Walla Walla
2012	Doug	WHITE	Manilla Central School
2011	Nigel	WHITE	Dubbo Senior College Campus
2011	Richard	WHITE	Balranald Central School
2011	Maurice	WOODMAN	Murray High School
2013	Jennifer	WOODWARD	Byron Bay High School
2013	Beth	WORTHY	Sapphire Coast Anglican College
2012	Jan	YOUNG	Murrumburrah High School

**Everyone got a BAAT to get conference and
ag review info - please update your membership status**

The 2010 Tamworth NSW AAT Conference from a Participants Perspective

Great chance to meet up with others & share ideas – I am inspired to change things at my school now. Thanks to one & all –
Simone Neville



Thanks for the invite –
Mel Henry (GGA)

Great conference!
Interested by Auscott tour where I saw a water storage dam bigger than the average North Coast farm – 200 Ha –
Mick Melino

What a great time! Why haven't I been before?
– **Dave Randall**



What a Rippa of a conference!!!
I learnt how to cook a steak, but the real highlight was getting bogged!!! –
Peter Collett

\$!*@ - you got me!
– **Does anyone know this man?**



Absolutely loved it!
The people, the trips, the Peel & Castlereagh and the sense that we can instil Agriculture into one and all –
Carl Chirgwin

A great chance to catch up with friends & meet new people. A great time had by all as well –
Jade Smith



Fishing, berries, trout, dairy tastings – No wonder we were an hour late getting back –
Gary Webb



Simply sensational!
Thanks to one & all –
Evan Paul

2013 - NSW AAT Conference - Tocal, NSW

Practical Solutions



20-24th January

Tocal College, CB Alexander Campus is situated in the picturesque Hunter Valley about 180 km north of Sydney. It provides a unique blend of agricultural training and practical experience for school leavers and other people who may be interested in rewarding careers in agriculture.

Year 10, 11 or 12 school leavers gain a practical pathway to careers in agriculture or gain credit in a variety of university degrees. Tocal College also provides a diverse range of education products and services to farmers, landholders and rural industries.



Cost:

\$330 (2012 NSW AAT members) by 30/11

\$380 (Non-Members)

Membership Cut-Off 30/11/12

A Family Friendly Conference

Day 1 – Sunday 20th January

Time	Requirement
From 3pm	Delegates Arrive at TOCAL
	Pick people up from Newcastle Airport/Paterson
	6-7pm BBQ & Drinks (Basic drinks of all sorts – please bring gold coins) Meet & Greet

Day 2 – Monday 21st January (Mostly Confirmed)

Time	Requirement
7-8	Breakfast
8-9	Delegates Arrive to Central Meeting Point
9-9.15	Conference Introduction – Cameron Archer
	House Keeping
9.15-10.15	QANDA with a Panel
10.15-10.40	Morning Tea & Walk to the Field
10.45-12.30	Stock Handling Workshop (Participants in this workshop will remain there for the entire day) Precision Agriculture in Action -Yamaha Aeroplane Spray Unit (1 hour) -Crop Optics Weedseeker (45 minutes)
12.30-1.30	Lunch Kubota Demo
1.30-2.30 2.30-3.15	Rotate between: Junior Judging (Carl Chirgwin) TOCAL College (TOCAL), and, Animal Nutrition & Photonic Therapy (Dianne Jenkins)
3.15-3.30	Afternoon Tea
3.30-4.30 4.30-5-6	Rotate between: Junior Judging (Carl Chirgwin) TOCAL College (TOCAL), and, Animal Nutrition & Photonic Therapy (Dianne Jenkins)
6-7	Dinner Preparations
7-11	Dinner & Networking (Bring gold coins)

Day 3 – Tuesday 22nd January (Mostly Confirmed)

Time	Requirement
7.30-8.30	Breakfast
8.30-9.30	Hatching Careers @ TOCAL
9.30-10.30	Microbiology Workshop -Amy Cosby UNE
10.15-10.40	Morning Tea & Trade Display
11.30-1.30	Concurrent Workshops (1 hour each & swap) -Composting (Bill Hazard) -Aquaponics (Sydney Permaculture) Ringlock It – Neville & Judy Prince
1.30-2.30	Lunch – Peter Thompson B.O.S
2.30-4.30	Concurrent Workshops (1 hour each & swap) -Bees (Steve Maginnity) -Wool Judging (Scone TAFE) -Ringlock It – Neville & Judy Prince
4.30-4.45	Afternoon Tea
4.45-6.00	Concurrent Activities -Propagation Techniques -Striking a Balance
6-7	Dinner Preparations
7-1	Dinner & Networking @ Paterson Tavern (Own Cost)

Not a Power-Point Presentation

in Sight!



Day 4 – Wednesday 23rd January (Mostly Confirmed)

Time	Requirement
7.00-8.00	Breakfast
8.00-6.00	Central Coast Bus Tour 1
8.00-6.00	Tomaree Penninsular Bus Tour 2
8.00-6.00	Hunter Bus Tour 3
6-7	Conference Dinner Preparations (Formal Attire required)
7-8	Pre-Conference Dinner Drinks @ TOCAL Homestead
8-2	Conference Dinner & Presentations @ TOCAL Visitors Centre

Day 5 – Thursday 24th January (Confirmed)

Time	Requirement
8.00-8.30	Breakfast & Vacate
8.30-11.00	NSW AAT BGM
11.00-	Conference Finished
11.00-	Deliver people to Newcastle Airport/Paterson
THANKS FOR YOUR ATTENDANCE AND TRAVEL HOME SAFELY → REMEMBER NATIONAL ASS. AG EDUCATORS NATIONAL CONFERENCE IS IN MID JAN. 2014 IN NEW ZEALAND←	

A camera and/or video camera is a MUST!

hOw tO eNrOl???

Name: _____	School: _____
Address: _____	
Numbers Attending: _____	Rooms' Needed: _____
Pickup Requirement: Yes/No Location of Pickup: Paterson Train Station/Newcastle Airport	
Time Required to be Picked Up: _____ Day & Date Required to be Picked Up: _____	
Dropoff Requirement: Yes/No Location of Dropoff: Paterson Train Station/Newcastle Airport	
Time Required to be Dropped Off: _____ Day & Date Required to be Dropped Off: _____	
Dietary Requirements: _____ Shirt Size: _____	

Please tick and deliver on which applies to you for the following:

- ☐ **Full Conference Fee: \$330 (From 1/11/12-15/12/12)** (If an individual or school member of NSW AAT as of 30/11/12)
- ☐ **Full Conference Fee: \$380 (If a non-member of NSW AAT as of 30/11/12)**
- ☐ **Conference Dinner Only Fee: \$50**

**Please register before 15/12/12 – pay earlier and get a discount – it's very helpful for catering purposes especially with people away for January holiday break.*

Please Circle Your Payment Option:

Direct Debit

Name: _____
 BSB: 082 939
 ACC No: 63975 7522
 Reference: Your name and 'conference'

Cheque

Name: _____
 NSW AAT
 C/-Laura Tolley
 NSW AAT Treasurer
 FMAHS
 Calala Lane
 Tamworth NSW 2340

Attention This Enrolment Form To:

Mail:

Carl Chirgwin
 C/- Griffith High School
 PO Box 1021
 GRIFFITH
 NSW 2680

Email:

carl.chirgwin1@det.nsw.edu.au

Fax:

02 69 641 465

Enrol & Pay before 30/11 and save \$50!!!

SO WHAT do you ACTUALLY GET???

Sunday 20th Jan

- Picked up from a train station or Newcastle airport
- Keys to a room
- Gift pack
- Conference Shirt
- Conference Merchandise
- BBQ tea
- Drinks (bring gold coins to assist here)

Monday 21st Jan

- Breakfast
- Morning Tea
- Lunch
- Arvo Tea
- Tea
- Presenters
- Workshops and materials
- A room
- More gold coins will help with more drinks

Tuesday 22nd Jan

- Breakfast
- Morning Tea
- Lunch
- Arvo Tea
- Presenters
- Gifts
- Workshops
- A room
- Bus to Paterson Tavern

Note: Tea and beverages on this night is your own cost as we are at a tavern

Wednesday 23rd Jan

- Breakfast
- Packed morning tea and arvo tea
- Bus trips and entry to field trip activities
- A room
- Conference pre-dinner drinks
- Conference meal
- Drinks at conference dinner
- Post dinner drinks by the form of using your gold coins

Note: You need to buy your own lunch on each field trip

Thursday 24th Jan

- Breakfast
- Free goodbye hugs
- Transport to a train station or Newcastle airport

Note: Attendance at the Biennial General Meeting is a must for the longevity of the association

NAAE CONFERENCE 2014

National Association of Agricultural Educators (Australia)

To be held at

Telford

A Division of Lincoln University (NZ)

Balclutha, South Island, New Zealand

Sunday 12th January – Thursday 16th January 2014

Q³

Quality Agriculture

+

Quality Education

=

Quality Outcomes

Come and join the Q



Telford
Te Whare Wānaka o Puerua
A Division of Lincoln University

NAAE Flyer 2 1 page file here please

'Building on the Amended HSC Agriculture Syllabus'

Farming for the 21st Century Elective

Issues relating to Research and Development (R & D)

R & D is fundamental to the progressive role of Agriculture in the Australian economy. Research is done by scientists working in government organisations (DPI, CSIRO) or private companies like Dow Agrosciences - global company accessing projects worldwide.

*(*Teachers - Google each issue and find relevant secondary source to use.)*

Issues in R & D include:

- 1 funding sources
- 2 patents
- 3 plant breeders' rights
- 4 animal welfare
- 5 legislation
- 6 contracts

Funding Sources

Funding for R & D comes from government sources (state or federal) or private companies with a marketing interest in a product or other reasons like environmental, social etc.

It is usually a stressful thing relying on funding to start, continue and/or finish a project. Often funding is linked to contract agreements and is reliant on the researcher of the team of scientists to come up with some results or be interested in the ongoing project. Depending on federal or state funding, there are rules which govern expenditure of funds and time frames.

Private companies may have ulterior motives, be purely profit driven, have genuine interest and be socially motivated e.g. environmental aspects with mining companies.

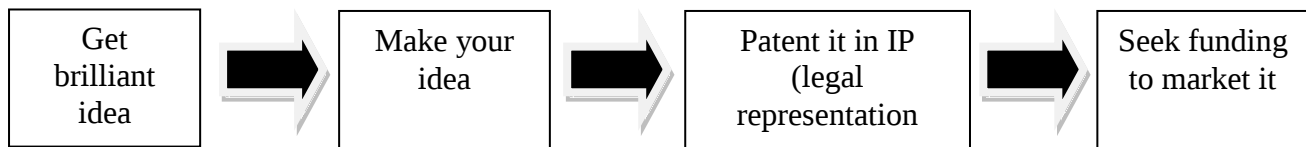
Patents – www.abc.net.au/tv/newinventors

This is when an invention is protected by a patent. A patent gives the owner the exclusive right to an invention within the market place. It is a government sanctioned monopoly (one person controls it) provided to the owner to exploit the invention to the exclusion of others. There is a set time length of the patent and it varies between 5 to 8 years and costs from \$5 to \$8000 (see patent sheet). www.actuateip.com.au/services/what-is-a-patent.html

To be patented an idea (invention) needs to be manufactured, novel and useful. It can be a product or a device, machine, business method (software) or biotechnology (GM).

Why patent?

- Financial benefit
- Protect your idea
- Allows you to legally threaten unauthorised users of the invention
- Helps your bargaining position
- Protects a company's investment in time and resources put into the R & D of that technology
- Costs money to patent something and has an ongoing maintenance fee so the idea needs to be worthwhile



NB I had a local inventor, Ed Evans with his safergate idea come in and talk to kids
(www.safergate.com.au)

Plant Breeders' Rights – www.ipaustralia.gov.au/pbr

There are exclusive commercial rights to a registered plant variety. The rights are a form of intellectual property like patents and copyright, and are administered under the Plant Breeders' Right Act 1994. When you have "rights" that means you have exclusive rights to produce the material, get it ready for propagation, offer it for sale, sell it, import and an export it and store e.g. a new coloured rose or variety of wheat or hybrid fruit tree.

Other forms of protection to Plant Breeders' Rights include a trademark and patents.

Why do it?

- For protection of great new variety
- Allows you to develop it
- Give you the exclusive rights to market the plant however you want

Inverell examples:

'Dictator' barley - can sow late season (June) and get good growth for feed.

'Drover' oats - has more rust resistance, dual purpose ⇒ good for grazing and is high yielding grain

'Taipan' oats - good grazing and grain

If a farmer buys some 'Drover' from Norco or Elders etc to sow they are allowed to do whatever they want with it (graze, strip, re-sow, feed out) but they are not permitted to sell it to anyone under the Plant Breeders' Rights Act 1994 as 'seed' oats.

Animal Welfare – Use 'Animals in Schools' folder, MLA booklet on "A Guide to best practice in husbandry in beef cattle"

Each state and territory has its own animal welfare act and accompanying regulations that affect people who own or work with animals, including farmers, livestock, transporters, exporters, processors and research scientists.

Under these acts it is an offence to transport, confine, restrain or catch an animal in a way that causes harm or is likely to cause unnecessary harm. This regulation refers to 'codes of practice' that define what is generally regarded as acceptable welfare practices for husbandry and transport. Compliance with the codes can be used as a defence against a charge of cruelty. Any research and development involving animal's needs to be able to demonstrate compliance with the Animal Welfare Act. People in charge of animals need to show how they meet duty of care obligations under animal welfare legislation.

Legislation

Legislation refers to the law and refers to areas surrounding research and development involving the need for legal advice and laws to govern how things happen e.g. Animal Welfare Act, Plant Breeders' Rights Act 1994, OHS Act.

Contracts

A contract is an agreement between at least two bodies for a set result and usually has a set time frame. To break a contract often involves a cost or loss of some sort.

The benefits of a contract is that they allow for an understanding or expectation to occur or the forming of a Memorandum of Understanding (MOU) e.g. sale of beef cattle to Woolworths, fat lambs to Country Fresh, certain amounts of grain to Graincorp. When cotton farmers use technology varieties (GM) like Bolgard [™] or Roundup Ready [™] they agree to use a trap crop at the edge of their field to ensure the integrity of the cotton's genetics.

Developments in Agricultural Technologies

Technology assists agriculture by improving efficiency of production and profitability. It can be seen in:

- Improved record keeping (use of software e.g. Cropmate - a new website that provides weather and climate information and access to a range of decision support tools to improve farm business)
- Greater access to information worldwide on new varieties of crops, chemicals, vaccinations etc
- Efficiency of machinery for cropping, safe animal use, improved safety of workers

We need to evaluate a number of new technological developments for HSC that assist agriculture industries including:

- 1 Satellite technologies - GPS and global imaging
- 2 Computer technologies - laser, climate forecasting, computerised recording system
- 3 Biotechnologies - GMO
- 4 Electronic identification system - NLIS
- 5 Robotics - milking, shearing and machinery

Refer to "New Technologies" A3 booklet (taken from *The Land*, September 2011).

1 Satellite technologies

www.scanex.ru/en/monitoring

www.satimagingcorp.com/svc/agriculture.html

www.brighthub.com/electronics/gps/articles/49812.aspx

<https://gps.about.com>

Earth is circumnavigated by many satellites. One task of geostationary satellite (stays in one spot and rotates with the Earth) is that they take global images of any spot on Earth. This can be used for:

- 'Spying' or doing a 'due diligence' check prior to purchasing a property for Native Vegetation Act purposes. The CMA might check up on farmers unlawfully clearing the land.
- Time lapse photos of changes in the landscape for certain areas
- For assessing change in vegetation and livestock movements (grazing pressure). Also very useful and cost efficient for fertiliser applications e.g. Sundown Pastoral Company "Newstead" near Inverell use this technology.

GPS - global positioning system. These are antennae that automatically re-aim to a satellite no matter where the GPS is situated. When people talk about a GPS they refer to a GPS receiver which uses a constellation of 27 satellites that orbit the Earth and at any one time there is at least 4 satellites 'visible' in the sky. A GPS locates one of these satellites and calculates the distance to the satellite and deduces its own location.

Global imaging - used for effective management systems on vegetation (pastures and crops) assessment, crop health, detection of change, environmental and irrigated land mapping, yield determination and soil analysis. Images show change in organic matter and drainage. This can be used in the management and control of agricultural resources. Spatial imaging uses a difference in colour in the image to provide information.

2 Computer technologies – (Info from AgQuip & brochures)

Society faces an increasing reliance on computers for efficiency of production both in terms of cost (labour saving) and quality - precision agriculture. Computers are used in the following ways to assist agricultural production:

a) Computer record keeping systems

All managers need to keep records so they can assess what they are doing and adjust their management if necessary. Records like stocking rates, fertiliser application and cash flow are all part of managing a farm system. It is also good to keep records on how the land responds to management. Use of monitoring videos, photographs, global imaging and dry matter (DM) analysis helps observe and record changes.

Many products/software packages are available to help. They provide a tool which incorporates business indicators covering profitability, production, people, finance and property performance e.g. ProfitProbe™, Cashbook™, Stockbook™.

These are aimed at helping the owner identify how they are going, showing areas of concern or excellence. For example, Farmbook lets you track crop and mob management look at paddock maps and plan paddock division for cell grazing and crop rotation.

b) Climate/Weather forecasting <http://cropmate.agriculture.nsw.gov.au>

Due to high variability of the Australian climate and the increasing links of agriculture to the weather and seasonal activity, any assistance for farmers is welcome. Currently anyone can access the Bureau of Meteorology (BOM) website. Raw weather data goes into the BOM computers and they plot the data onto state maps using symbols the forecaster can interpret.

CropMate™ is a computer software program produced by the DPI for farmers. This is an interactive website which provides weather and climate information as well as access to a wide range of decision making tools to improve farm business.

Farmers can click on the map of their area and get useful information for pre-season planning, sowing, spraying, tracking the season and harvest.

c) Laser Technology

Use of lasers for levelling land, cropping, spraying and irrigation allow maximum water usage and drainage.

3 **Biotechnologies** – Power-Points from cotton GM talks www.ogtr.gov.au

This is a combination of biology and technology and includes virtually any technical manipulation of biological processes. These can be used for biomedical techniques behind drug development, transplants and artificial hormones e.g. pregnant dairy cows fed anti-biotics which goes into the milk in the colostrum. This is collected, dried and made into capsules for people to take as protection from colds and influenza.

Chemical products like pesticides and plant grow regulators are forms of biotechnology used to advance and aid selection of genetically superior organisms, whether they are livestock, plants or microbes. Scientists use technologies including gene markers, genetic manipulation and genomics.

What is it?

The altering of genetic material by:

- removing or modifying genes already present
- altering the expression of a gene → genotype by switching genes on or off
- transfer of genetic material from one species to another → transgenic e.g. salmon gene in strawberries to make them more resistant to cod and frost (the most controversial issue with GM)
- adding an artificially built gene to a genome e.g. herbicide resistance.

4 **Electronic Identification System - NLIS**

Electronic identification (EID) is the technology by which animals are individually identified and traced using a unique identifying number stored on an electronic ear tag. This allows for traceability from farm to farm to abattoir and then to the individual packaging of meat.

EID allows accurate information for every animal which helps the farm manage and track its performance (weight gain, milking ability, calving rate/birth weight) and to automate many animal management and handling procedures.

5 **Robotics**

The use of machinery to make jobs easier is perceived as one of the five most important technologies. Robotics simply means the use of computers and machines to perform a task. An example of robotics changing the way companies operate is the high tech remote controlled systems used in Tasmania that have been developed by fish farmers to clean their nets. Instead of taking four men 8 hours to clean 120m net a machine can perform the task in 3 hours without chemicals. Other uses are in shearing and fruit picking where a tree shaker and vacuum is used for harvesting nuts.

The dairy industry relies heavily upon robotics for the milking process but still uses human labour for tasks like changing filters and rubbers, managing animals needing anti-biotics and colostrum collection. The benefits of robotics for the dairy industry include:

- *Labour saving*
- *Flexible hours*
- *Lifestyle improvements*
- *Individual Quarter Each Teet (QURT) records can be made using electronic devices*

Marketing of New Technology Developments – www.aaaa.com.au

Handy reference Agrifood Awareness - Gene Technology: fact or fiction booklet (free). Ph 6273 9535 for a class set

Once we come up with a new idea that is innovative and we feel confident, it will fill a niche (set market, special place) we then need to market it. This is the hardest part and requires advice and financial backing.

Marketing and patenting a technology is expensive (e.g. Ed Evans Safety Gate has cost him close to \$300,000 so far). To succeed and get the product on to the shelf you need a marketing body/group to back you and undertake all the safety standards tests, investigate legalities and sell your idea.

Marketing can be done by:

- Private investors - e.g. “Angels” are investors of an elderly nature who consider inventions and invest in them looking for a return on capital later on.
- Government bodies at state or federal level that also look for a ‘share’ in the product.

Many investors take their ideas to USA because the Australian market is only 1% of the size of the US market.

Reasons for Adopting Technologies in Agriculture

- Labour shortage in the rural industries has led to a demand for technologies to help do jobs e.g. Gallagher EID scanner, fish farm net cleaners, robotic dairies
- Efficiency and accuracy of task completion e.g. reading NLIS tags on Brahman NT cattle
- Environmental sustainability because of the reduction in need for use of chemicals e.g. fish net cleaning, GM cotton, reduces reliance on pesticide and herbicide use
- New and improved tillage implements (deep rippers V’s rotary hoe)
- provides a competitive advantage for our product which means we sell more and get more money e.g. using a fat scanner to check our contract beef before they go to Woolworths
- to help keep up to date and be able to adapt to change because change can be difficult e.g. learning to use computer software
- satisfying consumer trends e.g. organic produce

Adapting a Technological Development – www.biotechnologyonline.gov.au

Reason for it?

- Australia is a huge exporter of agricultural products with a good reputation for quality and disease free produce (decreased reliance on pesticides, longer growing season and resistance to pests)
- Competition at a global level for products
- Sustainable for environment (reduction in use of chemicals)
- Gene technology can be used to improve crop and food quality by use of DNA markers to speed up plant breeding and genomics
- GM of a crop plant involves introducing desirable traits to improve the yield or a desired quality. Done in three ways:

1. Input Traits

- Reduces the cost of products = less use of herbicides e.g. Roundup Ready

- Improve crop yields
- Reduce level of chemicals used to control insects, pests & diseases, weeds
- Offer protection from environmental stresses such as heat cold and drought and increase levels of salt in the soil
- Are commercially available

2. Output Traits

- Antioxidants may be added to foods to deliver health benefits
- Tobacco be nicotine free
- Flowers in more colours
- Food has improved taste, better shelf life and ripening characteristics
- Aimed at helping consumers by increasing the quality of food, fibre and other products

3. Value Added Traits

- Textile fibres
- Biodegradable plastics
- Use plants to product these traits

Also use gene technology to:

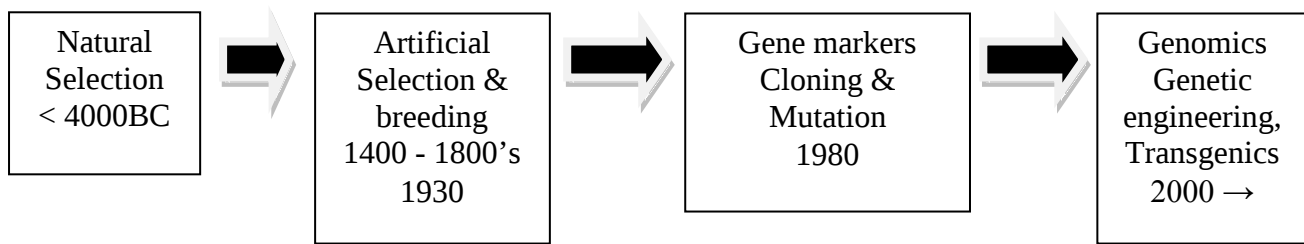
- Increase crop or animal resistance to pests while decreasing the use of chemicals e.g. Bollgard cotton, Roundup Ready
- Increase crop or animal tolerance to chemicals used to kill harmful pests
- Create disease resistance in crops and animals
- Improve food yield - plant and animal
- Make plants and animals more suited to special environments. Conditions such as drier regions or saline water
- Improved nutritional quality of the food produced by the plant or animal e.g. gluten free wheat

Examples - cotton and insect problem

- Australia produces the best quality cotton in the world and exports to China and much of Asia - huge export industry (96% produced)
- Big problem with production is pest control and use of sprays is costly to environment and financially
- DUE TO INCREASED PRESSURE FROM MARKETS AND AUSTRALIAN REGULATIONS COVERING FARM SAFETY, ENVIRONMENTAL DEGRADATION AND PESTICIDE RESIDUES FARMERS ARE PUSHED INTO FINDING AND ADOPTING MORE SOPHISTICATED IPM TECHNOLOGY
- Traditionally used chemicals to control insects, then IPM relying on beneficial (natural predators) and use of trap crops to lure insects away from cotton and beneficials in that area.
- *Helioverpa armigera*, the cotton bollworm, is worse and pest which eats cotton leaves and cotton ball after seeds.
- Problem with insecticides is resistance builds up and kills beneficial too, affects birds, lizards, waterways, people
- Gene technology is the solution to problem whereby a bacteria *Bacillus thuringiensis* (Bt) a soil bacteria that produces insect killing proteins, was used as a genetic engineering biotech to insert the legal gene into cotton plant e.g. Ingard® by Monsanto USA and recently, Bollgard® II by CSIRO uses Ingard® and extra Bt gene which improves chance of stopping resistance developing

- When the GM cotton grows and Bollworm caterpillar eats it, it poisons it. Now about 50% of Australian cotton is GM variety. It has decreased the use of insecticides by 80% of conventional varieties which is good for the environment
- Cotton farmers using GM cotton need to satisfy stringent conditions

Historical Development of GMO or Gene Technology



Key dates underlined on timeline sheet “A food biotechnology timeline”.

Details of Gene Technology

4 ways it can be done (genetic technology/engineering)

Biotechnology = GMO = gene technology = genetic engineering

- 1 taking away or modifying genes already present in a genome.
- 2 altering the expression of present genes by turning them on and off
- 3 transgenic - cross species
- 4 adding artificially made genes

Gene techniques: (How we use gene tech)

Genetic markers → identify individual traits e.g. marbling in beef cattle

Genetic modification via genetic engineering

Genomics (studying gene patterns)

Impact of GM

The development of the Gene Technology Act 2000 is a national scheme for regulation of GMO in Australia to protect health and safety of Australians and the environment by identifying risks posed by or as a result of gene technology AND by managing those risks through regulating certain deadlines with GMOs.

Environmental impact:

- using GM cotton there has been huge improvement in the environment due to reduced reliance on pesticide/chemical use (polluting water, illness in humans, kills all bugs especially beneficial, increased costs equals decreased profits)
- concern exists with herbicide resistant crops e.g. Roundup Ready cotton that this resistance will spread to the wild weed population and become uncontrollable.
- A recent suggestion of using GM crops to help reduce greenhouse gas emissions.

Economic impact:

- Be aware of increasing research and development costs associated with gene technology
- Is this offset by the savings in pesticide usage for crop production? Yes - usually huge savings
- Due to the long lifecycle of a cotton plant, it is prone to attack by a pest for a long time

Social impact:

- This refers to people's choice and preferences. A lot of people are ethically uneasy with using food that has been tampered with like transgenics e.g. salmon, genes in strawberries so they can tolerate cold weather
- Labelling GM food is VI so consumers know when they are eating it (see fat booklet with sticky note)

Legal impact:

- This involves the law and following the Gene Technology Act 2000 (refer to fat book with sticky note)
- Remember patents' role!

Managerial impact:

- Using a GM crop like cotton means following rules with your management to protect the crop from developing resistance to the technology e.g. conventional cotton V's technology cotton (excursion to cotton Boggabri/Narrabri)
- Using refuge crops e.g. pigeon pea
- Trap crops
- Following CSD rules and regulations

Research Methodology

Research Study Analysed: "GPS observation of shelter utilisation by Merino
..

www.hsc.csu.edu.au/electives

There are set expectations to be followed when any scientific research is undertaken. Refer to HSC online "Research Methodology" sheet. This research study involves the implementation of GPS as a recent technology.

Lit Review/Introduction

- This states the reason for bothering with this research paper. It's a problem because 12-34% of sheep off shears die in the first month.
- The purpose of a Lit Review is also to let the reader know where to find more details and research done by other scientists e.g. this paper lists about 75 references (include name of author, name of paper, year, name of journal, volume and page number)

Design of the study

- Using pregnant Merino ewes that are 14 days off shears. Done using 2 paddocks for two years (repetition and validity)
- Purpose of the study was to use GPS tracking devices on sheep to monitor behaviour measures such as shelter seeking and use of the paddock because of shelter
- Understanding of sheep behaviour was also sought on whether sheep use shelter more at different times of the day, the effect of temperature variation, effect of altitude variation, which side of the shelter they use in times of high sheep chill and after lambing.

Methodology of study

- Needs to be so precise that anyone can do it
- Very specific information is provided on location

- The paddocks used were similar in that they had lone tree, perimeter, shelter and open paddock. The same types of species were used in each paddock, shelter and the grassed in each paddock
- Prior to sheep being put in the paddock, weather stations and temperature loggers were put in and calibrated. (There were 55 temperature loggers used per paddock. The loggers were very carefully mounted and protected so no bias of results could occur.)
- Data collected included minimum and maximum daily temperatures, wind speed, wind direction, accumulated rainfall. All of these figures were used to calculate the Sheep Chill Index (SCI)
 - o SCI Low = <200
 - o SCI High = >230
 - o SCI Very High = >250
 - o SCI Extreme = .300
- Used matching data for a range of SCIs for 3 consecutive days pre lambing to base their results on
- Replication in this trial was achieved by a similar number of sheep per paddock area
- Same shelter belt pattern and species, same number of temperature loggers per paddock
- Same breed of sheep used and similar age range
- Same feed and water access for each group
- Experiment completed over two years using two paddocks
- Five of the ten ewes were randomly selected and had a GPS collar attached in each mob. 3 diurnal periods of time were used to observe ewe location
- A regulatory requirement was addressed in this trial by the animal care and ethics committee assessing the trial and approving it. Example of addressing the animal welfare and need was shown when the GPS collars were first put on. The ewe was carefully observed for a period of time to check for discomfort or concern
- GPS collar was called "UNTracker". Ewe location was recorded every 10 minutes for 50 days of the experiment's duration
- Using technologically advanced computer software, the ewe movement data was transferred from the GPS records on to a grid for interpretation

Presentation of analysis data

- A statistical analysis software program was used to determine comparisons of observed counts depending on shelter type, wind direction and climate
- Data for each year was analysed separately and for each paddock. Then any significant difference was looked for and reported on
- This research paper relied mainly on tables to present the data. A GPS generated computer grip map (p733) was used to show the sheep distribution in each paddock for the chosen three day interval.
- It is noted that the research paper uses a very technical type of terminology and impersonal genre which is how scientific papers are meant to be done. Basically every result and data reported on needs to be commented on which makes analysis tedious
- Every table included needs to be commented on with a key if necessary

Conclusions and Recommendations

- It was shown sheep will seek shelter in times of high SCI. This was shown consistently over the two years and on both paddocks. This suggests the wellbeing of ewes is compromised if inadequate shade and shelter are provided.
- It was also shown that wet, cold and windy conditions increase shorn sheep mortality rates and decrease in wind speed will decrease the likelihood of loss (use of shelter belts is good) also this study showed sheep respond to cold beyond the 14 days and is contrary to the

belief that unshorn sheep are well insulated against the cold (recommended 28 days off shears)

- Sheep tended to use the lone trees in the paddock for shade in the middle of the day
- It was seen that the two key influences were temperature and altitude on paddock use in both paddocks
- Night camping was not found at the highest point but high point with shelter. Though this is linked to predation vigilance
- It is recommended for future study to look at how ewes use shelter post shearing and the effect of altitude

This research paper focused on Sheep Chill Index (SCI) and the use of GPS collars, allowing the control and replication of experimental treatments more easily because there is a full record of sheep movement. DSU with technology issues use of GPS collars is that they are bulky and a bit uncomfortable for sheep and expensive

Final summary

- See above paper
- Shelter is very important for increasing sheep survival and wellbeing

Compiled by Deb Snaith
Head Teacher Agriculture
Macintyre High School
Inverell

Science Awards

Applications are now open for 2013 Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry. Discover the details at www.daff.gov.au/scienceawards

The screenshot shows the official website for the 2013 Science and Innovation Awards. The header includes the Australian Government logo and navigation links like 'DAFF Home', 'About DAFF', 'Grants', 'Media Centre', 'Publications', 'Ministers', 'Languages', and 'Contact Us'. A sidebar on the left lists various resources under the 'ABARES' section, including 'About ABARES', 'Publications', 'Surveys', 'Data', 'Models', 'Media Releases', 'Conferences and Events', 'Outlook 2012', '2013 Science and Innovation Awards', 'Guidelines - 2012 Science and Innovation Awards', and 'Award Partners'. The main content area is titled '2013 Science and Innovation Awards' and features a section for 'Grants to realise big ideas from young rural innovators'. This section explains that grant applications are now open for young people (18-35) to apply for up to \$22,000 to fund innovative projects in agriculture, fisheries, and forestry. It also mentions Senator Joe Ludwig's launch of the awards and lists twelve award categories open for applications, including cotton, dairy, fisheries, aquaculture, grains, viticulture, and oenology. The page concludes by stating that applications are assessed by a panel of industry representatives and encourages participation to expand the quality and diversity of new ideas for rural innovation.

PIEF update

APPOINTMENTS TO PRIMARY INDUSTRIES EDUCATION FOUNDATION BOARD

The Annual General Meeting of the Primary Industries Education Foundation (Foundation) confirmed the appointment of four new Directors to the seven person Board of the Foundation. The Foundation is a tripartite not-for-profit company. The three sectors supporting it are education, primary industry and government, and it aims to encourage greater learning about primary industries in Australian schools.

Every three years the Board undergoes a selection process through a selection committee appointed by members. The selection committee recommends to the Annual General Meeting appointments for the forthcoming year.

The newly appointed Directors are:

Ms Lynn Mason, Tasmania

Ms Mason has a background in education, primary industries and local government. Her experience in primary industries spans fisheries, cropping, grazing and agricultural contracting. Ms Mason also served as Mayor of Flinders Council for six years.

Professor John Halsey, South Australia

Professor Halsey has extensive experience in school education and curriculum development. Professor Halsey is now Sidney Myer Chair of Rural Education and Communities at Flinders University, South Australia.

Mr John McKillop, NSW

Mr McKillop is actively involved in the National Farmers Federation Economic Committee and Corporate Agriculture Group. He is a former Managing Director of Clyde Agriculture and a former Group General Manager for Elders Australia. Mr McKillop brings to the Board strong financial skills and an enthusiasm to educate and inspire young people about careers in primary industries.

Mr Stuart Hemmings, NSW

Mr Hemmings has a background as a secondary high school teacher in the NSW Department of Education and Communities and is now a Director Education within the Department. Mr Hemmings' detailed knowledge of the education and curriculum systems will be of great advantage to the Board.

Continuing Directors are:

Ms Joanne Grainger, primary producer, Mungindi, QLD

Dr Cameron Archer, Principal Tocal College, Paterson NSW

Dr John Taylor, Brisbane, QLD

Retiring Directors are Mr Nigel Grant, Warwick; Mr David Thomason, Sydney and Ms Beth Welden, Brisbane.

"The retiring Directors have given long and dedicated service to the Primary Industries Education Foundation from the time the idea was first mooted", Dr Cameron Archer, Chair said. Their expertise and guidance has been invaluable during the formative years of the organisation.

"The new board will continue to work with all sectors to improve learning about food and fibre production. It will closely monitor developments within the Australian Curriculum to ensure that there is much coverage of food and fibre production within all relevant areas " Dr Archer said.

"The results of a survey of school student knowledge about food and fibre production released in March demonstrated the need for the Foundation' Dr Archer said. 'With over a quarter of school students thinking yoghurt grows on trees there is plenty to be done."

1st IN 2 UNIT AGRICULTURE

2011 HSC EXAMINATION

Eleanor Wallis from **Gosford High School** gained 1st place in 2 Unit HSC Agriculture in 2011. It is the first time that a student from Gosford High School has achieved this accolade and senior Agriculture teacher, **Grant Jackson**, was delighted with Eleanor's result.

"This was the culmination of much hard work and dedicated application to her studies", Mr Jackson said. "Eleanor was an excellent student who was able to articulate her responses with depth of knowledge and clarity". Eleanor studied Extension 2 English, Extension 1 History, D & T in addition to Agriculture.

Her passion for Agriculture developed over the 6 years that she attended Gosford High School. Eleanor, who lives on a small acreage in the Matcham Valley, is an avid horse rider and keeps a small flock of laying hens. She is the youngest daughter of David and Laurel Wallis, Laurel being a former Gosford High student herself. Eleanor participated from Year 7 in the GHS Ag GATS program, attending many Shows with the Gosford High School show team, successfully exhibiting steers, poultry and honey products.

Despite not having the time to maintain her involvement in this program in her senior years, Eleanor still maintained an active interest in the groups' progress and results. Her time outside of study was devoted to voluntary work in her local community in years 11 and 12, whilst she also became active in a number of welfare and Aid Abroad programs within the school.

Presently, Eleanor is enrolled in an Arts/Law degree course at Canberra's ANU, after which she hopes to work in the field of Food Bio-security.

I am sure her future will revolve, in some part, around Agriculture and she is a very proud recipient of the **2011 NSW Agriculture Teachers' Charles Mullavey Shield**.

Organised by Justin Connors

Agriculture Teacher

Manilla Central School



Congratulations Eleanor and Grant

Farm study project promo 1 page file here please

Postponed Farm Study Project Videoconference

For 1-2 November we attempted to run a Farm Study Project via a series of videoconferences, with associated school-based practical activities, the content of which covered most aspects of the Farm Case Study and Farm Product Study components of the senior Agriculture syllabus. We received wonderful support, both from the NSWAAAT, and the RAS. Unfortunately, the broadcast had to be postponed due to a lack of participants.

It has since come to our attention that there may have been a number of underlying factors preventing Ag teachers from participating. We would be pleased if you could email any issues and ideas to us so that we may bring you this project at a later time. The following are some thoughts you might consider:

- What is the best time of the year to run this activity? (Term X, Week Y)
- For how long (hours) should the videoconference run? What is an ideal length?
- How many sessions would be ideal, considering the need for some teacher input?
- How accessible is the videoconference facility in your school?
- Do you need training to operate your videoconference facility?
- What support would you need to participate in the project?

Looking forward to hearing from you.

David Foley
david.foley@det.nsw.edu.au

Graham Quintal
gandiquintal@optusnet.com.au



The Poultry unit has two new books some teachers may be interested in (they are designed for Cert III in Poultry Production).

See <http://www.poultryhub.org/education/resources/books/> for details (the cover images are available at <http://www.poultryhub.org/wp-content/uploads/2012/05/Feed-and-Growing-books.jpg>).

These can be ordered for \$10 a piece via PrintWest (http://www.poultryhub.org/wp-content/uploads/2012/10/PrintWest_Nutrition_Environment_OrderForm.pdf).

Mick Warner
Communications Officer
phone: 02 6773 3767
fax: 02 6773 3050
Mobile: 0457 733 450

AgriFood Career Access Pathway

These are early days, yet the notion of an AgriFood Career Access Pathway (AG-CAP) has struck a chord across the rural and related industries. The AG-CAP model recognises the shift towards a higher skilled workforce and the significant demand for new and exciting paraprofessional jobs.

“Technology is transforming what we do and how we do it. We are one of the most diversified and rapidly changing workforces in the economy Science is moving beyond the domain of university graduates with emerging para-professional and technician job roles set to change the shape of our workforce”.

AgriFood Skills Australia 2012 Environmental Scan

The AgriFood Career Access Pathway is a new and exciting initiative leading to rewarding careers in the modern agrifood industry. With the North West/New England of NSW being home to a diversity of industry sectors, educational institutions and research and development organisations, it is ideally placed to implement this new initiative. Working in partnership, AgriFood Skills Australia and the NSW Department of Education and Communities are positioning the region as a leader in preparing today’s young people for tomorrow’s agrifood industry.

The Distributed Campus model that underpins AG CAP, will link students with industry experts, researchers, academics and specialist teachers, providing them with the latest skills and knowledge required in this vibrant and increasingly high-tech industry.

“Students really need to be obtaining information on complex bio-system approaches where they can use up-to-date technology to cope with the increasingly complex operational environment of agricultural production or agricultural research”.

Dr Thomas Banhazi, Senior Research Scientist from the University of Adelaide.

The starting point for AG CAP dovetails into Year 9 and 10 agrifood programs at school, taking in agricultural science and primary industries students in Years 11 and 12, flowing seamlessly to agricultural college and TAFE with even a gap-year bridging course (currently under development) that will give students credit towards an undergraduate program when they enrol in university.

The AgriFood Career Access Pathway is flexible, supporting both students and existing workers helping them to attain the skills and knowledge they need to move into new job roles. Institutional study and relevant work and life experience contribute towards AG CAP credentials at each stage of the pathway. Credentials are nationally recognised under the Australian qualifications Framework.

Students will be members of a distributed campus getting access to the latest information, industry experts and training opportunities. Hands-on practical activities will complement the higher level theoretical education provided through the research and development corporations and UNE.

Members of the AG CAP fraternity will meet together a number of times a year participating in specially convened events that will give students real insights into the range of career opportunities in the agrifood industry. Over time, students and parents will realise that being an AG CAP participant will lead to viable careers and a great lifestyle; right on their doorstep.

The Distributed Campus will capitalise on existing resources such as broadband and e-conferencing facilities. Tapping into networks across the New England and North West region linking students to those industries where they live and learn is a key feature of AG CAP.

Through a collegiate approach, teachers and trainers will receive professional development from industry specialists, students will be introduced to employers and the R&D sector and universities will support training delivery across the education spectrum.

When the practical application of food and fibre science drives the curriculum, it becomes impossible for the curriculum to be out of date.

What does this mean for Year 11 students 2013?

Students can undertake a Traineeship in Agriculture while attending Farrer. They must do Primary Industries Core III and either Primary Industries Extension (Beef) or General (Crop).

As they will be required to undertake 100 days of industry work with an employer they may also be enrolled in Industry Based Learning which counts as a 2 unit subject however does not count towards an ATAR.

The student is paid at the training wage rate by the employer (rate depends upon award) and the employer gains some financial assistance for taking a trainee and upon completion.

Parents can be the employer. This allows the work students undertake on their farm to be counted towards Structured Work Placement.

Benefits:

- Student completes traineeship and has more industry experience.
- Student gets paid to work
- Gets counted towards HSC so one less formal subject to study
- Exposure to industry training days each term
- Parents may be able to claim the employment cost as a tax deduction
- The student could use the wages to part pay their boarding fees
- 6 units of study and 2 subjects for HSC requirements.
- 100 days can be completed during weekends and holidays if desired so less disruption of term time
- Don't have to complete Mandatory Structured Work Placement
- 2 units of subject not timetabled (Industry Based Learning) so students have to work in Library on their other subjects during these periods. They are not counted as "Frees"

Disadvantages

- Cost to parents / employer
- Loss of holiday / weekend/ term time to complete 100 days between start of year 11 and December of Year 12. Could miss Schoolies if days not already completed
- 2 days per term lost on special Industry Training Days
- 2 units of subject not timetabled (Industry Based Learning)

Compiled by Graeme Harris

Head Teacher Agriculture

Farrer Memorial Agricultural High School

Review of Agricultural Education and Training in NSW

This review is CRITICAL for the survival of YOUR subject and meeting the needs of Australia in the future.

The national curriculum will not have much time available in years 7 and 8 and could be reduced for Year 9 and 10. Senior Ag still to be determined.

This is a once only opportunity.

Could all NETWORKS / INDIVIDUALS / SCHOOLS please make submissions.

Submissions close Friday 23 November 2012 from <http://www.dec.nsw.gov.au/about-us/statistics-and-research/public-reviews-and-enquiries/agricultural-education-review>

Submission Template

Submitted by _____

CONSULTATION QUESTIONS

Question	Response
1. What factors have led to the current mismatch of supply to demand in the agriculture workforce in New South Wales?	
2. What needs to be done to better align the supply of skilled and qualified people with employment demand in the agriculture, aquaculture and forestry industries?	
3. What particular areas of the agriculture sector are most in need of a better skilled and qualified workforce in order to address future needs?	
4. How well positioned is NSW to meet the challenge of raising skills and qualification levels and improving research and development in agriculture?	
5. What other challenges and opportunities are there for increasing skills and qualification levels in agriculture?	
6. What is the mix of skills and qualifications needed to support the continued growth of the agriculture, aquaculture and forest industries?	
7. What should be the respective roles of the education and training sector, industry and government in addressing the skills shortage in agriculture?	
8. What are the key issues for ensuring better support for agricultural education and training in rural and regional NSW?	
9. What opportunities exist for education and training institutions and the agricultural industries to lift skill levels and increase the number of people in rural and regional NSW taking up careers in agriculture?	
10. How, in particular, can Aboriginal students in rural and regional areas be better engaged in education and training for careers in agriculture?	
11. How effective are the Kindergarten-12 curriculum and related curriculum initiatives in providing knowledge and skills in Agricultural education?	
12. What impediments are there to effective tertiary pathways in agriculture? How might pathways be improved?	
13. NSW has 4 agricultural high schools – what value should we place on these and should the concept be expanded?	

14. What are the infrastructure needs for the effective delivery of high quality agricultural education and training?	
15. How might current infrastructure be better utilised to support improvements in education and training in schools, vocational education and training providers and universities?	
16. How can apprenticeships and traineeships be more effectively utilised in the agriculture industries?	
17. How might NSW attract international students into its agricultural education and training network?	
18. How might the current range of careers advice resources better promote agriculture as a career path?	
19. Are there career promotion initiatives that have proved effective in other industry sectors that could be adopted?	
20. What are the impediments to ensuring that agriculture is perceived as an attractive career path?	
21. How can industry assist in enhancing the image of agriculture careers and promoting employment opportunities?	

SUBMISSIONS

Submissions are invited addressing, but not limited to, the questions set out in this Issues Paper.

Submissions close on Friday, 23 November 2012 and can be made:

By email

agriculturalreview@det.nsw.edu.au

By post

Manager

Review into Agricultural Education and Training in NSW

NSW Department of Education and Communities

GPO Box 33

SYDNEY NSW 2001

Issues paper ag review – 16 page file here please

All season and trace element one page file here please

Ollsson tech bulletin no. 3 2 page file here please

Coonabarabran High School

Yr 8 Agriculture Sheep Research Task

NAME: _____

PART 1:

- a) Distinguish between the terms internal and external parasites and disease. **(3 marks)**

An internal parasite _____

An external parasite _____

A disease _____

- b) Construct a table listing three examples of each of the following.

- Internal parasites
- External parasites
- Diseases

	1	2	3
Internal parasites			
External parasites			
Diseases			

PART 2:

- Select three parasites (internal /external) and two diseases (five all up) and provide detailed information including: **(25 marks)**
 - Cause
 - Symptoms
 - Treatment
 - Prevention
 - Diagram / picture

Name: _____

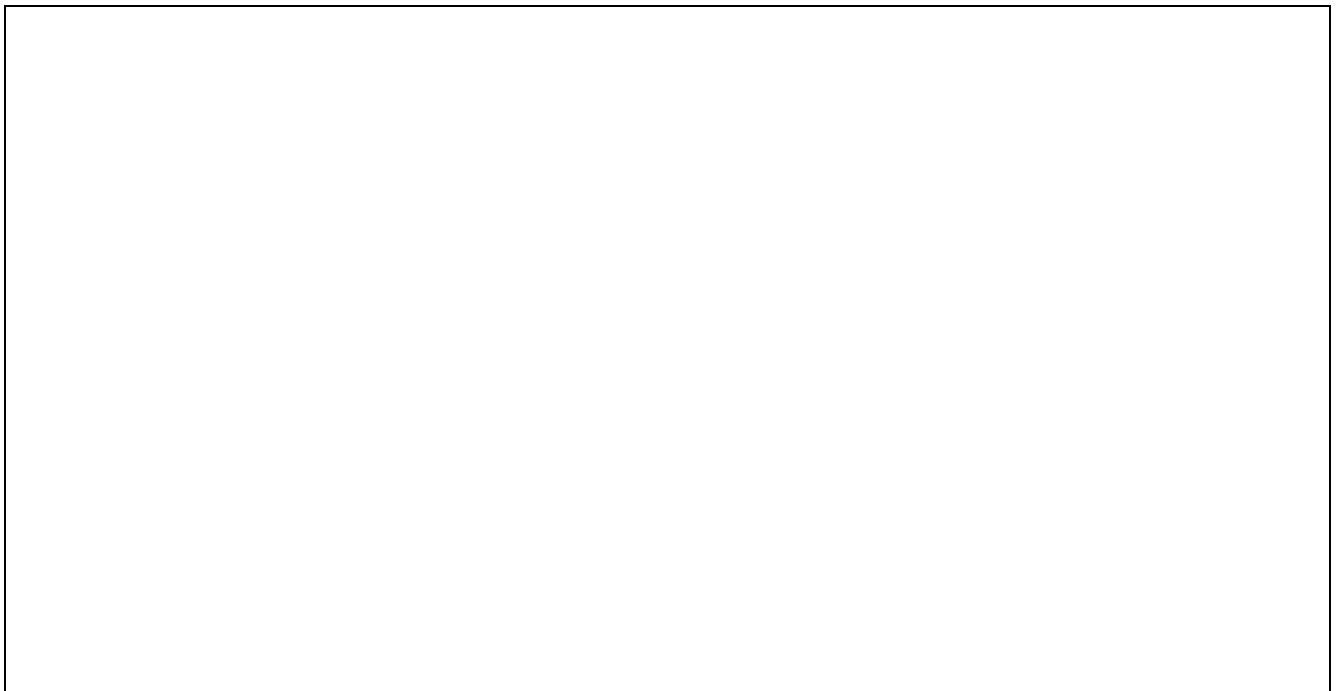
Cause: _____

Symptoms: _____

Treatment: _____

Prevention: _____

Diagram:



Repeat this twice more

PART 3:

- Identify a particular sheep production system. *Eg. Prime Lambs, Self-replacing flock, Wool, Ultra -fine Wool,*

Production system _____

- Identify a suitable area where this production system would be best suited and state why.

Suitable area: _____

Why: _____

- Construct a calendar of operations for the sheep husbandry practices required for your chosen production system.

- Justify your sequencing of the husbandry practices.

(10 marks)

Submitted by Danual Stewart – The Warhorse of the Agriculture Faculty @
Coonabarabran High School

What's Happening in My School

In 2010 I arrived at Hay War Memorial High School as a first year Agricultural Teacher. The school had a large Agricultural Plot, a well-established poultry and vegetable production section and a large proportion of students with an interest and background in agriculture. But due to the drought and budget constraints there were no livestock. My background is in veterinary science and my interests lay in animal production so I set out to source some stock that would suit our circumstances.

Considering our schools geographic location, facilities, financial capabilities and the learning outcomes and experiences I wanted to offer the students, it was decided that an establishment of a small sheep stud would be ideal. I wrote a letter to every sheep breed society I could think of explaining our situation and asking for help. I received a reply from two who were very keen to be involved. We decided to go with the Dorper Society as Dorpers are a drought tolerant, low maintenance breed of sheep and would enhance the learning of the students by focussing them on something new.

The Dorper Society rallied behind our school and organised amongst its members for the donation of a dozen stud quality Dorper and White Dorper ewes from top studs all around the country which arrived early 2011. They also organised for us to borrow a ram for our first ever joining period. In addition, the Dorper Society also organised for representatives to visit our school regularly to work with students teaching them about the breed and assisting them with show preparation and handling skills.

The school became a registered stud early 2011 operating under the prefix *Aberline*. Being a War Memorial School, students found the name befitting as it is the first surname on the memorial board of Hay soldiers lost in the Boer war in South Africa, from where the breed originates. We attended our first show in July 2011 and were amazed at the support we received from the other Dorper studs. In this first year we always left shows with more sheep than we arrived with thanks to the amazing generosity of the Dorper competitors. As Hay is very dry over the summer months, a Dorper stud in Mathoura offered to take our sheep over the summer holidays. During this time Murray River Genetics kindly donated their time and resources to artificially inseminate and later pregnancy diagnose our ewes. We were lucky enough to achieve a 100% pregnancy rate to prize winning sires.

Our flock returned to the school early February, with a brief trip back to Mathoura for a week during the March floods. The return of the sheep signalled the commencement of the showing season, and at this time the show team was selected. The students worked very hard during term one attending after school halter training and showing preparation classes. We also had five new ewes, donated over the holidays to break in. The students did a fantastic job and in April, they competed at The Royal Easter Show in Sydney. The students did very well at this show, conducting themselves with politeness and professionalism gaining many compliments on their skills and behaviour. The sheep also did well bringing home many ribbons.

The sheep were left to rest after this show until the commencement of the lambing season in May. This has been our most successful lambing season to date, seeing the live birth of ten lambs. Dorpers are renowned for being good mothers and have certainly proved themselves this year as they raised the studs next generation.

After the lambing season the show team began to prepare the sheep for the Australian Sheep and Wool Show in Bendigo, Victoria. Students did an excellent job trimming hooves, washing and shearing their own sheep for this show. Once again the show team did our school proud and impressed the other competitors with their skills, manners and behaviour. Our sheep also impressed winning several first place ribbons gaining the title of Junior Champion White Dorper Ewe. Our students did an amazing job in the junior handlers section of the show which is open to anyone aged under 25 years. Hay War Memorial High School students took out first, second and third in this competition, a great achievement considering the team are all under 15 years.

Our success at the Australian Sheep and Wool Show resulted in our school gaining a request to compete at the National Dorper Show in Dubbo. This is the highest level of competition Dorpers can be shown at in Australia and a fantastic learning opportunity for our students. The show team once again did all the sheep preparation and did an excellent job representing our school. Our white Dorper lamb 'Millie' who was born on our school farm in May placed fourth in her class, meaning she is the fourth best White Dorper lamb in the country. An exceptional result for such a small and relatively new stud.

This September holidays our sheep and show team travelled to their last show for the year – The Royal Melbourne Show to defend our titles of Grand Champion Ewe, Reserve Grand Champion Ewe and Supreme Dorper Exhibit.

Aberline has had many successes this year and I look forward to the next stage in the stud's progress when we begin to sell some of our progeny and achieve our goal of having a self-funded Agricultural Plot.

Compiled by Amber Sargeant

Agriculture Teacher

Hay War Memorial High School



CCC Presentation Sydney 1 page file here please

South Coast 4 page file here please

TOTAL Topics 4 page file here please

Total Promo 2 page file here please

Ag vision publicity 10 page file here please

Picse 2 page file here please

An Oldie but a Bloody Goodie!!!



Meat & Livestock Australia has launched a unique educational tool for use in the classroom.

The **Virtual Farm Visit** features three very different beef and sheep properties – the Kimberley, central west NSW and Gippsland – showcasing the breadth and adaptability of these enterprises.

A suite of video clips, supported by fact sheets, show each farmer talking to the 'visitor' about various aspects of their business. The content is curriculum-aligned and grouped in subject areas for use in the classroom.

The tool has been developed in consultation with teachers and is accompanied by a set of teacher's guides.

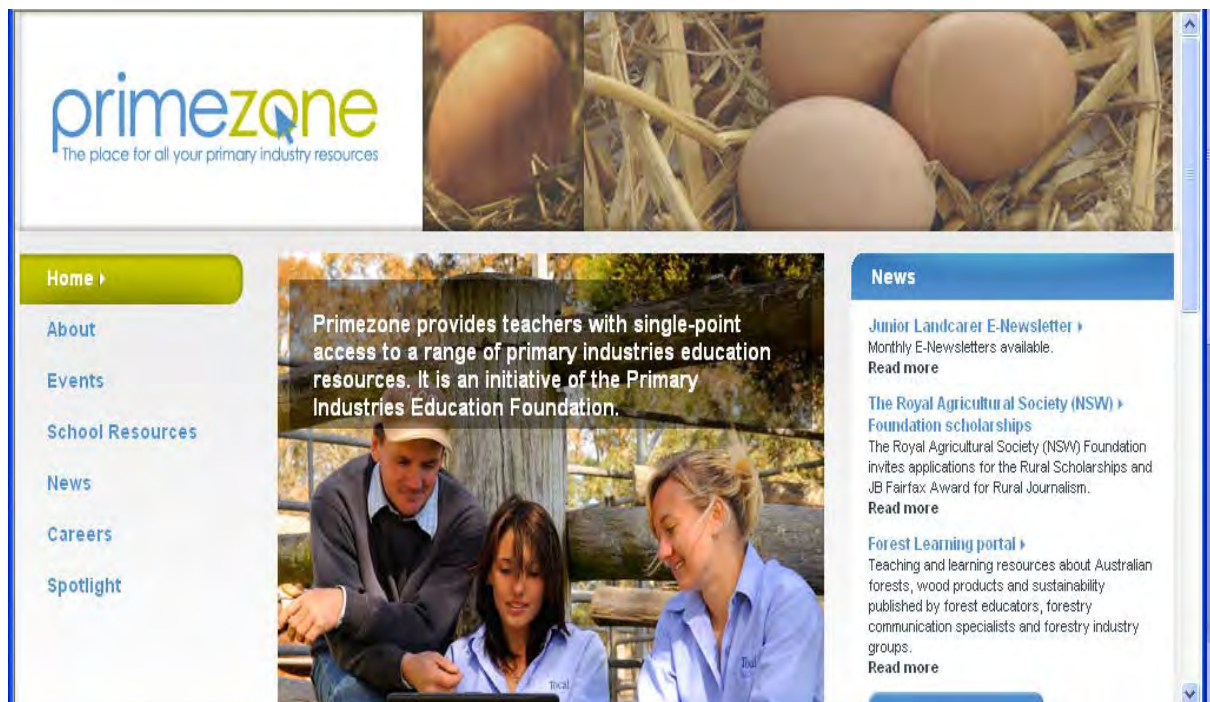
The [Virtual Farm Visit](http://www.mla.com.au/virtualfarm) is available on MLA's website – www.mla.com.au/virtualfarm

Getting agriculture into every classroom is a shared goal and **I encourage you to share this resource with your colleagues and to teachers at other schools** who might also find it useful.

Regards
Deborah

Deborah Leake
Manager Industry Integrity Communications
Meat & Livestock Australia
Level 1, 165 Walker Street
NORTH SYDNEY NSW 2060
Ph: 02 9463 9275
Email: dleake@mla.com.au

PrimeZone



www.primzezone.edu.au

www.yearofthefarmer.com.au
www.yearofthefarmer.com.au



Australian Year of the Farmer® **Our Farmers. Our Future.**

Log in Register
Phone: 1 800 642 724

Home About News Get Involved Events Education Careers In Ag Partners One Country Card Shop Contact

Home

03-07-2012 IGA Perth Royal Show 29th Sep - 6th Oct >

26-06-2012 Minister vocal in support of Australian Farmers >

25-06-2012 Ozsale joins the One Country Card family! >

05-06-2012 One Country Card - Winner Story >

BUY \$25 ONE COUNTRY CARD
Your purchase supports the future of Australian agriculture.
[Click here to purchase](#)

Get Involved
Supporting the Year is easy. What are you going to do to celebrate Australian Year of the Farmer?

Stories From The Year
As 2012 rolls on, we're collecting stories from farmers, Proud Supporters, Sponsors, and our Roadshow crew.

Farm Gate Signs
Show you're a proud Australian Farmer! [Click here to purchase your fully customisable Australian Year of the Farmer farm](#)

Our Videos
Check out our latest videos showcasing the best Australian farmers have to offer and messages of support

Photo Competition
The Elders Fairfax Photo competition enriches and celebrates the connection between rural and urban Australia.



Australian Year of the Farmer® **Our Farmers. Our Future.**

search... GO
Log in Register
Phone: 1 800 642 724

Home About News Get Involved Events Education Careers In Ag Partners One Country Card Shop Contact

Home > Education > Our Philosophy

Our Philosophy

Just as our farmers grow our future and sustain our way of life, our children will play a major role assuring the future of this great country. In particular, one of the important roles they will play is helping meet the rapidly growing demand for farmed products globally.

It is important all Australians know the finest fabrics, fibres and foods are grown in our own backyard. This can continue, if children are given the knowledge and opportunity to meet the challenge.

Our philosophy is to provide everyone with access to materials to understand the vital role Australian farmers have in growing our future.

Farmers and consumers depend on each other. We hope to help young Australians understand the journey a product takes from being grown on a farm to being enjoyed or consumed. Too many times we hear students tell us "milk comes from the supermarket" – the Australian Year of the Farmer aims to change this perception.

To help take the Australian Year of the Farmer message to schools, AYOF will be aligning with education partners who will deliver a range of fun, informative and age-appropriate activities across the country.

Our farmers are among the best and most efficient in the world. This is one of the greatest stories never told. In 2012 we will tell this story for all Australians to appreciate and enjoy.

SHOPPING CART
No items in the cart.

OUR MESSAGE

[View the Greatest Story Never Told](#)

ONE COUNTRY CARD
BUY \$25 ONE COUNTRY CARD
[Click here to purchase](#)



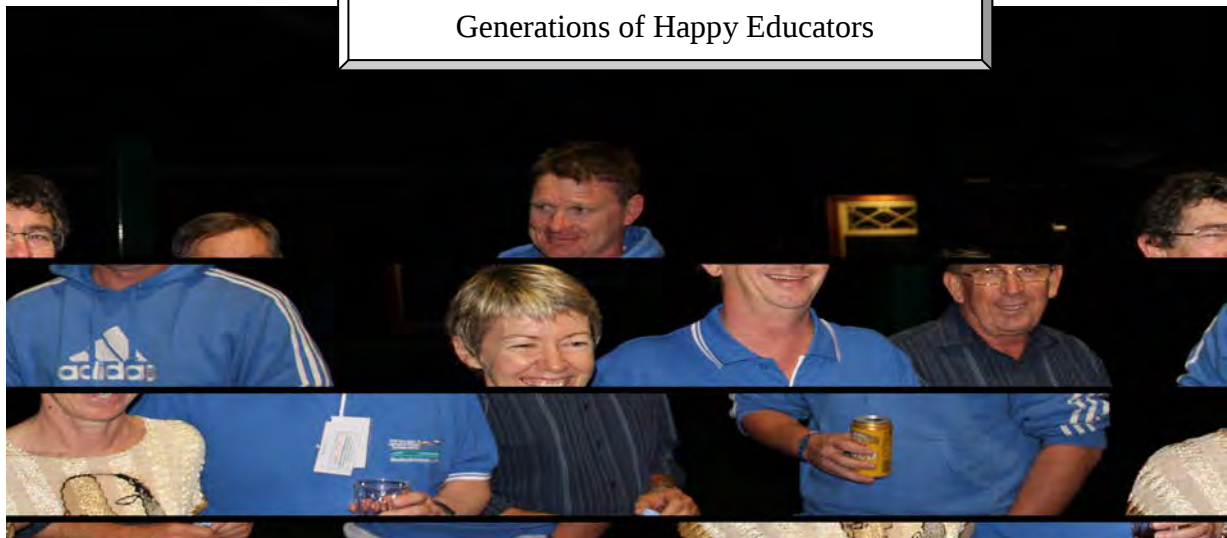
GPS = Dead Straight



This is not bad, not as good as mine though, but not bad

Mmm – where do I start?

Generations of Happy Educators



Come and Make New Memories at TOCAL – 20-24th Jan 2013