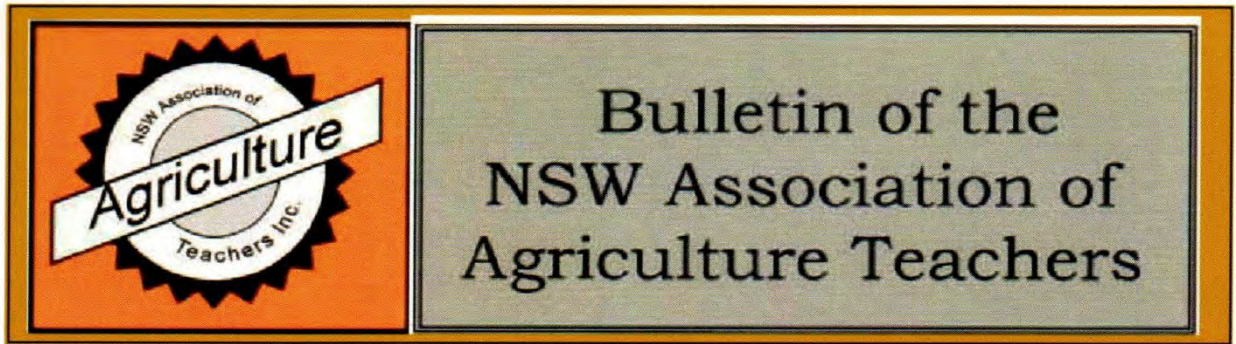
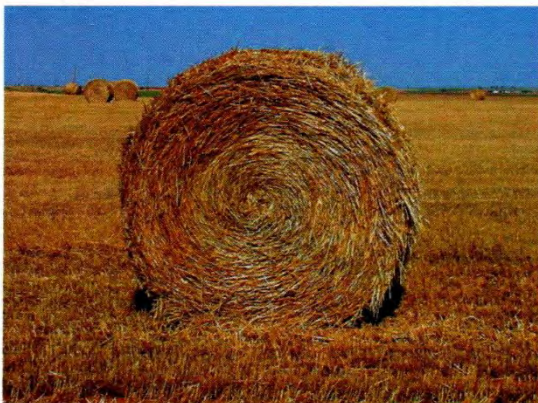




B.A.A.T

2009



Spot the Differences...

N.S.W. Association of Agriculture Teachers Inc



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ABN Number: 81 639 285 642

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Time for a Plant Trial



One and Only...

“FROM THE SILO IN THE Paddock”

-As winter grain finally makes its way into the bin and the summer planting boom hits the districts, we all continue to excel in the world of Agricultural education.

-A highlight of this issue is the avenues to access professional development for oneself and ones school, and, the reasons to become a member of this GREAT association.

-One cannot forget the upcoming conferences (information inside):

- **National Association of Agricultural Educators** – 10th – 14th January 2010, Gatton
- **NSW Association of Agriculture Teachers** – 5th – 8th October 2010, Tamworth

-The association will feature at the **2010 Royal Easter Show** at the ‘Careers in Agricultural Expo’ (see from page 21). We are looking for people to assist us in the lead up to and on the day. If you would like to assist in one way or another, please contact Carl Chirgwin by the email below.

-Schools that would like to see themselves promoted in “What’s happenin’ in my Paddock” please contact us.

Proud BAAT Editors – Nikia Collins (Hillston Central School) & Carl Chirgwin (Griffith High School)

nikia.collins1@det.nsw.edu.au & carl.chirgwin1@det.nsw.edu.au



‘Flood the Fields’

President's View Point.....

Phil Hurst



HSC AGRICULTURE SYLLABUS REVIEW

The team of writers has been selected and has made a number of amendments to the current syllabus. The Association had a big influence when selecting the writing team. In consultation, Howard Kennedy (NSW Board of Studies Inspector Responsible for Technology), Stuart Hemmings and myself looked for a cross section of people. We wanted country and city plus Education Sector representation. The team we selected were:

- David Randall - Richmond High School*
- Owen McLaughlan - Canowindra High School*
- Deb Snaith - MacIntyre High School*
- Libby Dawes - Scots School Bathurst (formally St Stanislaus Bathurst)*

The Association has also worked with the Board by providing consultation feedback from a wide range of areas. They have also consulted with the three education systems, the NSW Farmers Federation, Tocal and University lecturers.

The Board of Studies is due to consider the amended syllabus at its November 3 meeting.

The amendments have removed overlap, providing clarity of depth of study required for each dot point by providing a "students learn to" column. They have also brought the syllabus up to date by making it more contemporary.

I would like to thank the team and all the people who have provided feedback.

The timing of the implementation of the amended syllabus will be decided by the Board. So keep an ear to the ground and make sure you are ready to implement it. The Preliminary Course hasn't changed much so in the first year of implementation we should have ample time to plan the HSC Course changes.

NATIONAL ASSOCIATION OF AGRICULTURAL EDUCATORS 16TH BIENNIAL CONFERENCE.

Registration is now open at <http://www.naae.asn.au/conference.htm> I recommend this Conference to you as a great way of networking. The Association executive has decided to subsidise current financial members \$100 to attend the conference (payable after attending the conference). See you there!

PREMIER'S AGRICULTURE SCHOLARSHIP

I would like to thank Nicolet Westerhof (Secretary) for filling in for me on the selection panel for this scholarship. At the time of writing the winner has not been announced. If you are interested in applying for next years' scholarship, keep an eye out for the application forms at <https://www.det.nsw.edu.au/awards/scholarships/index.htm>

HURLSTONE AGRICULTURAL HIGH SCHOOL INQUIRY

I prepared a submission, on behalf of the Association, addressing a number of concerns regarding the proposed sale of the school's farmland. At the time of this going to print there has not been any decision handed down from the Government. Let's hope it is a favourable one for all of us or we will be wondering "who's next"?

WEBSITE

We are about to embark on a cleanup and modernization of the website following a problem with our web host (going offshore and then folding). Graham and Ian moved very quickly to fix the problem with the website only being down for a couple of days. Keep checking in to the website so you can keep up to date with what is happening with the Association.

Phil Hurst: NSWAAAT President 2009-10

Premier's Agriculture Scholarship

As a result of the generous support of the Premier applications are invited for the *Premier's Agriculture Scholarship*.

All teachers currently teaching Agriculture in schools or TAFE NSW Institutes are eligible to apply. The award is for a study in any aspect of Agricultural studies with special emphasis on Sustainable Agriculture

It is anticipated that the successful applicant would spend up to five weeks involved in a study program. Teachers from government and non-government schools will need to negotiate relief with their employing authority. The recipient's itinerary must be organised for travel to be completed by 30 June 2011.

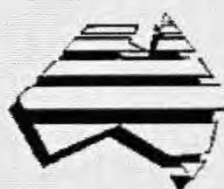
Time need not be spent in formal study, but may involve a program of visits to schools and institutions to conduct interviews, observe exemplary practices and collect resources for the preparation of teaching materials related to environmental education.

One scholarship of \$15,000 will be awarded in 2010.



Putting the National Curriculum into Context

Registration



16th Biennial Conference National Association of Agricultural Educators

Date: Sun 10th - Thurs 14th January, 2010

Venue: University of Queensland, Gatton Campus

Closing Date for Registrations: Friday 27th November 2009
Late fee of \$50 may apply after this date

For further information contact Nigel Grant
The SCOTS PGC College
Oxenham Street, Warwick, Qld. 4370
Tel. (07) 4666 9802
Mob. 0400 699 897
Email: nigel.grant@scotspgc.qld.edu.au



Proudly sponsored by

..... Primary Industries Education Foundation

Putting the National Curriculum into Context

Wednesday, 13th January, 2010 – Day tours

(Tours depart at 8.00 am; lunch on the road)

Tour 1 – Southern Darling Downs & Granite Belt

Tour 2 – Fassifern Valley & Gold Coast hinterland

Tour 3 – Lockyer Valley

7.00 Conference dinner under the stars
(Guest speaker / entertainment – Harmony James; John Arlidge)

Thursday, 14th January, 2010

8.15 NAAE Biennial General Meeting

9.00 Workshop 7

Stream A	Stream B	Stream C
Dung beetle projects	Coming to grips with bio-diversity and wildlife on farms	Kitchen garden projects Jandowae SS

10.30 Morning tea - UQG Dining Hall

11.00 Plenary session

12.30 Lunch - UQG Dining Hall

1.30 Vocational Education & Training electives (optional)

- Tractor driving
- Boom spray calibration
- Fencing
- Grafting
- Basic animal husbandry

Note: Additional costs will be associated with these optional electives

Accommodation

Single room accommodation (some doubles available) with share bathroom facilities

Conference Cost : \$570

Includes all meals & accommodation; full day tour; conference shirt & satchel; conference dinner

Early bird registration: \$540 if payment received before 31st October 2009

[Register Here](#)

Platinum Sponsor

Primary Industries Education Foundation

Gold Sponsors

University of Queensland

Poultry CRC

Silver Sponsor

AgriFood Skills Australia

Bronze Sponsor

Australian Agricultural Colleges Corporation NAPCO

Putting the National Curriculum into Context

Programme



Sunday, 10th January, 2010

- 2.00 Registrations (Shelton Hall Common Room)
- 4.00 Tour of UQG campus & facilities (optional)
- 6.00 NAPCO Welcome BBQ & drinks – Staff Bar

Monday, 11th January, 2010 – National Curriculum theme

- 8.00 Registrations (cont.)
- 9.00 Welcome & Opening
- 9.30 Keynote Address
 Prof. Barry McGaw - *Chair, Australian Curriculum, Assessment and Reporting Authority*
 'The National Curriculum: What will it look like and where might education about primary industries fit in?'
- 10.30 Morning tea / Trade displays - UQG Dining Hall
- 11.00 Forum
 'The place of agricultural education in a National Curriculum'
 (Facilitator – Peter Kenny - Past president AgForce)
 - o Barry McGaw - *Chair, ACARA*
 - o David Crombie - *President, National Farmers Federation*
 - o Bill Graham - *Head of Education, Farming and Countryside Education - UK*
 - o Nigel Grant - *President, NAAE*
 - o Arthur Blewitt - *AgriFood Skills Australia*
- 12.30 Lunch – UQG Dining Hall
- 1.30 Workshop 1 – The National Curriculum

Stream A	Stream B	Stream C
Years 7-12 Science	Years 7-12 Humanities	Years P-6

- 2.30 Afternoon tea / Trade displays - UQG Dining Hall
- 3.00 Workshop 2

Stream A	Stream B	Stream C
QDPI school activities – a. Plant science competition b. Weed Warriors	Towards a solution for ruminant methane emissions	Establishing a garden for learning Jerry Coleby-Williams (ABC Gardening Australia)

- 4.00 Workshop 3

Stream A	Stream B	Stream C
Poultry trials in schools; ideas, incentives and legal obligations	Sustainable water use in schools - Ballandean SS	Property planning for sustainability

- 6.30 Dinner - UQG Dining Hall
- 7.30 Evening programme – 'Strange Birds and Nude Foods'
 - o Jim Barnes & Leanne Gangemi

Tuesday, 12th January, 2010 – Primary Industries Education Foundation theme

5.30 Milking (optional)

9.00 Educators launch of Primary Industries Education Foundation

- Dr. Cameron Archer (TOCAL)
- Ben Fargher (NFF)
- David Thomason (MLA)
- Beth Welden (AgForce)
- Prof. John Lovett (Chair, Agrifood Awareness Australia)
- Dr Peter Knight (Uni. Sydney)
- Joanne Grainger (Chair, Cotton Australia)
- Ben Stockwin (Principal, Abbotsford Primary, Tasmania)

10.00 Educators launch of Poultry Co-operative Research Centre resource kit

10.30 Morning tea / Trade displays - UQG Dining Hall

11.00 Workshop 4

Stream A	Stream B	Stream C
Industry Engagment: How can you make links between your classroom and the real world. e.g Gateway Schools	Native floriculture (i) (UQG Staff)	Land Learn resources (Victoria)

12.00 Workshop 5

Stream A	Stream B	Stream C
STEP in LABS – Legume research for school students	Native floriculture (ii)	Keep Australia Beautiful (Qld) Green & Healthy Schools competition and other sustainability initiatives

1.00 Lunch - UQG Dining Hall

2.00 Forum – Smart Farming: Innovative Technology in 21st Century Australian Agriculture

(Participants to be advised)

3.30 Afternoon tea / Trade displays

4.00 Workshop 6

Stream A	Stream B	Stream C
Genestar technology (Pfizer Animal Genetics)	Plant breeding for beginners (Pacific Seeds)	Ollie's Island

6.30 Poultry CRC Dinner - UQG Dining Hall


Primary Industries Education Foundation



NSWAAT 2010 Biennial Conference

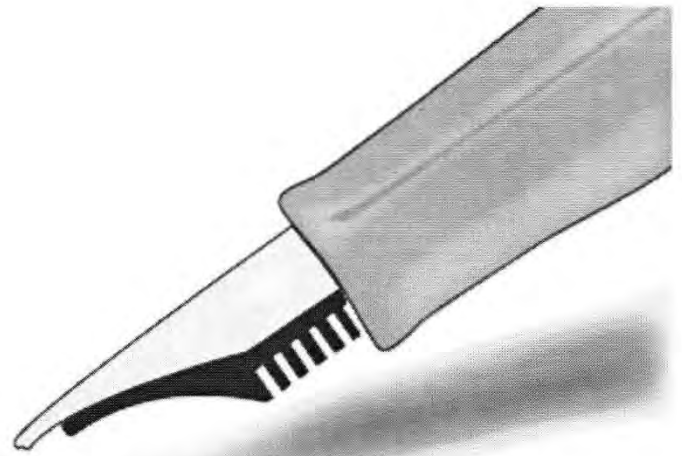
TAMWORTH
and the surrounding region.

**Lake Keepit Sport and
Recreation Centre (tbc)**
(to arrive Monday evening and
depart Friday morning, with Tues-
Thurs the main conference days).

Conference fee to include:

- **Discounts for members;
so why not JOIN NOW!!**
- **A wide array of field
visits and activities**
- **Professional discussion**
- **Syllabus updates**
- **Industry updates**
- **All meals**
- **Conference dinner**
- **Family friendly
accommodation options**
- **Pleasant surroundings**
- **Plenty of good times!**

Any initial enquiries please contact:
Stuart Hemmings **Ph: 6755 5928**
or by email to
Stuart.hemmings@det.nsw.edu.au



CLAIM THE DATE!!

Monday 4 – Friday 8 October 2010

"The science of agriculture practically everywhere"

You are warmly invited to join ...

Members and guests of the NSW
Association of Agriculture Teachers at their

Biennial Conference 2010

*There is considerable 'discussion' at present about the
future directions for **Australian Agriculture**.
The debate is being portrayed in both in the press and in
parliamentary circles. The science, technology,
practicalities and sustainability of agriculture need to be
understood and communicated clearly. Teachers of
agriculture and agricultural educators in general are very
well placed to do this and are key players in the future of
agriculture in Australia and indeed globally.*

**STAND BY FOR FURTHER DETAILS TO BE
RELEASED AS THEY BECOME AVAILABLE.
HOWEVER.....**

*Please ensure your Principal and/or Professional
Learning Coordinator knows of your interest and
enthusiasm to attend*

NOW!!!

Please join us!

N.S.W. Association of Agriculture Teachers Inc



www.nswaat.org.au
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www.nswaat.org.au

-Membership Muster- 2009

- # 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:**

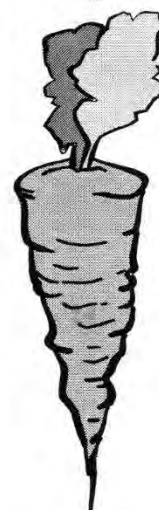
Cathy Perri
Wollondilly Anglican College
Locked Bag 1011

TAHMOOR

NSW 2573

Phone: 02 6967 2277

Fax: 02 4684 2755





Important notice..

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.*

...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.*

TREASURER

Cathy Perri
Wollondilly Anglican
College
Locked Bag 1011
TAHMOOR

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

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.

**A
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APPLICATION FOR MEMBERSHIP



To:
THE N.S.W. ASSOCIATION OF AGRICULTURE TEACHERS

TITLE: _____ NAME: _____
 SCHOOL: _____
 PHONE: _____ FAX: _____
 EMAIL: _____
 POSTAL ADDRESS: _____

 POST CODE: _____

MEMBERSHIP FEES:

* 1 YEAR: _____ \$60 (2010)
 * 2 YEARS: _____ \$120 (2010 - 11)

N.B. Subscription applies for period from January 2010 for either one or two year period.

Subscription Required: _____ Year(s)

Amount Enclosed: \$ _____

Please forward completed form with payment to:

Cathy Perri
Wollondilly Anglican College
Locked Bag 1011
TAHMOOR NSW 2573

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



Current Association Membership

October

2009

<i>Membership Valid Until</i>	<i>First Name</i>	<i>Surname</i>	<i>Membership Valid Until</i>	<i>First Name</i>	<i>Surname</i>
LIFETIME	Tony	Barnett	2010	David	Gell
LIFETIME	Don	Bartholomew	2009	Cliff	George
LIFETIME	Lisle	Brown	2010	David	Gillard
LIFETIME	Tony	Butler	2009	Milton	Gower
LIFETIME	Rod	Francis	2009	Melissa	Grabham
LIFETIME	Phil	Hurst	2010	Neil	Griffith
LIFETIME	Peter	Jones	2009	Nicky	Gunning
LIFETIME	John	Lee	2010	Leonie	Harris
LIFETIME	Robyn	O'Leary	2010	John	Hawkins
LIFETIME	Norm	Robinson	2009	Colin	Hawthorn
LIFETIME	Trevor	Sewell	2009	Ian	Heffernan
LIFETIME	Jenni	Wilkins	2009	Stuart	Hemmings
Associate	Sally	Bannerman	2010	Robert	Henderson
2009	Teacher	Colo High	2010	Stuart	Hill
2010	Teacher	Gosford High	2010	Sue	Hope
2010	Teacher	Koorringal High	2010	Mark	Hopkins
2009	Teacher	Lithgow High	2010	Peter	Humphries
2009	Teacher	Merriwa High	2010	Karen	Johnston
2009	Teacher	Riverina Anglican	2010	Ken	Jones
2009	Teacher	Toormina High	2010	Ian	Judd
2009	Teacher	Young High	2009	Prue	Kesby
2010	Bryon	Adamson	2009	John	Killeen
2009	Bob	Anderson	2009	Ilka	Klepper
2009	Graeme	Anderson	2010	Tracey	Lee
2009	Phil	Armour	2010	Bruce	Manktelow
2009	Billinda	Auld	2009	Diana	Martin
2009	Vicki	Austin	2009	Patrick	McCann
2009	Fiona	Bailey	2009	Ross	McGregor
2009	Ian	Baird	2010	Jacqueline	McIntosh
2009	Norm	Balzer	2009	Owen	McLaughlan
2010	Tony	Barnett	2010	Allan	McMillan
2010	Diana	Beale	2009	Mick	Melino
2009	Ian	Bishop	2010	Christina	Mikan
2009	Phil	Booth	2010	Tim	Minehan
2009	Sheree	Bourke	2009	Fiona	Mulhall
2010	Craig	Bourne	2010	David	Muller
2009	Graham	Bramley	2009	Peter	Napier
2010	Jacque	Brooksby	2010	Simone	Neville
2009	Eddie	Buckingham	2010	Trevor	Newham
2009	Peter R.	Burns	2010	Bronwyn	Nielsen
2010	Tracey	Burton	2010	Steve	Nott
2009	Sheena	Carter	2010	Phillip	Oliver
2010	Dale	Chadwick	2009	Emily	Pearn
2009	Megan	Chandler	2009	Georgina	Price
2009	Carl	Chirgwin	2009	Graham	Quintal
2010	Caroline	Clatworthy	2010	Gail	Roberts
2009	Caroline	Coleman	2009	Paul	Ross-New
2009	Jack	Collins	2010	Katie	Rowe
2010	Nikia	Collins	2010	Warwick	Shaw
2010	Helen	Colman	2010	Nadine	Sibbald

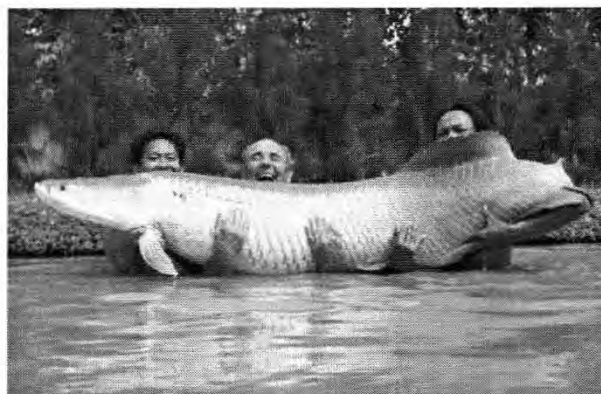
2009	Justin	Connors	2009	Nicole	Simmons
2010	Ben	Coombes	2010	Jade	Smith
2009	Nigel	Cox	2010	Paul	Smith
2010	Ian	Crabb	2010	Deb	Snaith
2009	David	Crick	2009	Geoff	Spence
2009	Peter	Crick	2009	Cathy	Perri (Stimson)
2009	Alison	Dahlenberg	2010	Stuart	Stout
2009	Elena	Dagher	2010	Stephen	Trickett
2010	Robert	Dolman	2010	Ron	Victor
2009	Catherine	Dove	2010	Gary	Webb
2009	Christine	Duver	2010	Nicolet	Westerhoff
2009	Susan	Earl	2010	Wayne	Whale
2010	Max	Eden	2010	Doug	White
2009	Leanne	Ferguson	2009	Maurice	Woodman

Hooked Line and Sinker

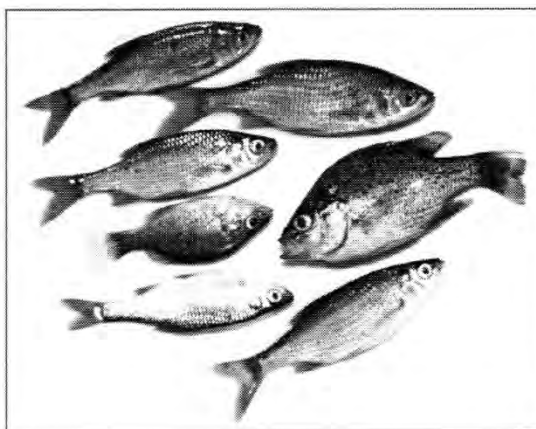
There has been a lot of interest from schools about Aquaculture facilities in schools.
The following is some information about farming fish from an Animals' in Schools document.

However, if anyone does or knows of schools who have aquaculture type setups, programs, contacts and suppliers, can they please contact myself as it would be a great addition to the Winter BAAT of 2010.

Contact
carl.chirgwin1@det.nsw.edu.au



Aquaculture



Aquaculture is the commercial farming of fish, molluscs, crustaceans and aquatic plants, in natural or controlled marine or freshwater environments.

Aquaculture will grow in importance as pressure increases on wild fisheries. At present the industry is dominated by oyster farming with prawn farming also making a valuable contribution. The silver perch industry is becoming the most valuable freshwater aquaculture species in NSW. Other important species in NSW aquaculture include trout, snapper, mussels, yabbies, barramundi and Murray cod.

There are various species of fish that are suitable for using in a schools' aquaculture enterprise. Care should be taken to ensure that species that are most appropriate to the school environment are selected. Characteristics that need to be considered in the selection of species for a school-based aquaculture enterprise include:

- Ability to thrive in captivity
- Suitable behaviour such as schooling and swimming near the water surface
- Capable of rapid and uniform growth
- Amenable to artificial feeding
- Efficient food conversion
- Non-cannibalistic

- Disease resistant
- Hardy
- High meat recovery
- Marketability.

Note: It is illegal to stock the following species in NSW waters:

- Tilapia
- Redfin
- Gambusia
- Carp
- Koi carp.

Aquaculture permits

An aquaculture permit is required under S. 144 of the Fisheries Management Act 1994, *where a proponent intends to cultivate fish or marine vegetation for the purposes of harvesting the fish or marine vegetation or their progeny with a view to sale; or keeping fish or marine vegetation in a confined area for a commercial purpose.*

An aquaculture permit is required whether fish are grown for human consumption, or used in the aquarium trade, for sale to other fish farmers or sale of fish for stocking farm dams or waterways.

An aquaculture permit is not needed where a proponent keeps fish in a pet shop for sale

Animals in schools: Animal welfare guidelines

partb_aquc



or in an aquarium for exhibition, or where fish are maintained for non-commercial purposes, e.g. stocking a farm dam with fish for personal recreation use or consumption.

More information about aquaculture permits can be found through the NSW Department of Primary Industries website
www.dpi.nsw.gov.au/fisheries

Environment

All facilities used to house fish must be operated in a manner that optimises conditions for the particular fish species. Suitable facilities for holding fish include ponds, raceways, tanks, cages and aquaria.

All facilities should be aerated. Tanks and aquaria should be aerated continuously with diffused air and ponds with mechanical aerators such as paddlewheels for around 8 hours/day.

In circular, self-cleaning tanks, a constant flow of water must be used to facilitate the removal of solids and dissolved wastes, e.g. ammonia to supplement aeration. If tanks need to be static, e.g. during chemical treatment, fish should not be fed and water (10–30%) should be exchanged daily.

Space

The stocking density for fish is dependent on the prevailing water quality, the size of the fish, the temperature of the water and the oxygen supply. Table 1 lists the optimum stocking density for each of the housing types.

Table 1

Housing type	Optimum stocking density
Tank	10 kg/m ³
Cage	20 kg/m ³
Pond	20 t/ha

Covers or shelter for tank

Tanks should be placed undercover or in a building out of direct sunlight to provide an environment with relatively low light intensity.

During winter months the need to heat individual tanks can be avoided by keeping tanks in a closed environment where the air temperature of the room can be maintained. Heating should be used before the water temperature drops. This reduces the amount of heating required and saves power and money.

Water quality

Maintenance of good water quality is the most important aspect of fish husbandry. Maintenance of good water quality requires the regular monitoring of temperature, dissolved oxygen, pH and ammonia, and for marine and brackish water species, salinity.

Temperature

Fish are *ectotherms* because heat is obtained from outside the animal unlike *endotherms* (e.g. mammals) that generate their own body heat. Usually, the body temperature of ectotherms is close to that of their surroundings; they are often described as *poikilothermic* (having variable temperature).

Temperature affects all chemical and biological processes. The metabolic rate of fish doubles for every rise of 10°C. Therefore, temperature has a direct effect on important factors such as growth, oxygen demand, food requirements and food conversion efficiency. The higher the temperature, the greater the requirement for oxygen and food and the faster the growth rate.

Temperature partly determines the concentration of oxygen in water. The solubility of oxygen decreases with increasing temperature, and so concentrations are usually lower in summer.

Silver perch have a temperature tolerance range of 2 to 38°C with optimum growth occurring between 23 and 28°C. During winter when water temperatures are lower, silver

May 2008 **2 of 5 pages**



perch will require less food and have a slower growth rate. At temperatures below 10°C the fish may enter a state of torpor, with greatly reduced appetite and activity. As the water temperature increases in spring and summer, the fish will require a larger quantity of food due to the increase in their metabolic rate.

If the temperature is to exceed the critical level for a particular species, fish may become stressed, more vulnerable to disease, stop growing and can die.

Dissolved oxygen

Dissolved oxygen is the most critical and limiting variable in fish husbandry and culture. Like all animals, fish cannot live without oxygen. Although fish can survive at levels of 4 mg/L, they may suffer stress, reduced growth and increased susceptibility to disease.

Oxygen enters water through diffusion at the air-water interface and as a result of photosynthesis when there are plants in the water. For aquaria, tanks and raceways, dissolved oxygen is usually supplied through low pressure compressors or blowers (through diffusers like air stones). In ponds, paddle-wheel aerators are among the most efficient methods of transferring oxygen from the air to the water. This also helps with mixing water throughout the pond.

Salinity

Salinity refers to the total concentrate of all dissolved ions. Many Australian native fish tolerate a wide range in salinity, with freshwater species coping with up to 5 g/L and many estuarine species coping with salinity as low as 10 g/L.

Fish need to be given time to adjust to changing salinity.

ph

The desirable range for fish is around 6–9, depending on the species. A pH of 4 is lethal for most species while prolonged exposure to pH levels of above 10 is also lethal.

Other variables that influence the water quality include alkalinity, hardness, turbidity and ammonium, nitrite, hydrogen sulphide and carbon dioxide levels.

Water exchange

Poor water quality can result from inadequate water exchange. Water exchange can be achieved through:

- Partial draining of the pond or tank and then replacing the lost water.
- Flow-through systems with the pond, tank or raceway remaining full through water entering and leaving the system at the same time from different locations.
- Recirculating systems.

Filtration

The maintenance of water quality in tanks and aquariums can be assisted through a filtration system. The different types of filtration include:

- mechanical
- chemical
- biological.

Cleaning

Tanks should be cleaned regularly, by siphon or vacuum pump, to reduce problems with the accumulation of organic matter (uneaten food, faeces) and fouling organisms, bacteria and algae. Filters need to be backwashed regularly to prevent build up and decomposition of accumulating waste material. Floors and drains associated with tank rooms should be cleaned and sterilised on a regular basis. Dilute pool chlorine or sodium hypochlorite (NaOCl 20 ppm) or caustic soda (NaOH 1%) are suitable cleaning agents for this purpose.

Food requirements

Type

Commercial diets are available from a number of feed manufacturers for marine and freshwater fish including diets for larvae, juveniles and adults. The commercial diet used

Animals in schools: Animal welfare guidelines

partb_aquc



should be designed for the target species, life-stage and size.

Commercial fish diets should be stored for as short a time as possible before use and kept cool and dry. If the diets are to be stored for longer than one month they should be kept in cool (<15°C), dry conditions or frozen.

Silver perch are often fed fresh or frozen bait fish or aquatic plant material. This food needs to be stored frozen and care must be taken to ensure it is not contaminated and does not deteriorate.

Quantity and regularity

Fish should be fed to optimise survival and growth. Each species should be fed appropriately.

If fish are not feeding vigorously, excess feeding can adversely affect water quality. At such times feeding should be reduced or suspended until conditions improve.

Normal behaviour

Varies with species and therefore other references will need to be consulted for the type of fish you plan to keep.

Sign of illness

Signs of illness include skin lesions such as spots, fin erosion, gross colonies of bacteria, ulcers or growths, floating, listing, swelling of the body cavity and swimming upside down.

Handling

Fish must not be handled. A suitable net can be used to capture the fish.

Euthanasia or humane killing

Where fish become so sick, diseased or injured that recovery is unlikely or undesirable on humane grounds, euthanasia should be carried out.

The preferred method of euthanasia is by a firm tap on the head with a suitable blunt object followed by rapid severing of the spinal chord.

Disposal

Fish should not be released into natural waterways without the appropriate licence.

Suggested references

Websites

Department of Primary Industries/Fishing and aquaculture

www.dpi.nsw.gov.au/fisheries

Aquaculture council of WA

www.aquaculturecouncilwa.com/home

Printed texts

Grant, E.M. (2002) *Grant's Guide To Fishes*, E.M. Grant Pty Limited, Brisbane.

Hollaway, M. and Hamlyn, A. (2001) *Freshwater Fishing in Queensland: a guide to stocked waters*. Department of Primary Industries, Brisbane.

Merrick, J.R. and Schmida G.E. (1984) *Australian Freshwater Fishes: Biology and Management*, Griffin Press Limited, South Australia.

Department of Primary Industries (2002) *Fish Guide. Saltwater, Freshwater and Noxious Species*, The Great Outdoors Publications, Brisbane.

McDowall, R. (1996) *Freshwater Fishes of South-Eastern Australia*, Reed Books, NSW.

Bryant, C. and Rowland, S.J. (1994) *Silver Perch Culture: Proceedings of Silver Perch Aquaculture Workshops*, NSW Fisheries.

Contacts

Marine Teachers Association of NSW,
C/- Ballina High School, Locked Bag 1,
Ballina NSW 2478.



Approved activities: aquaculture

Please note:

The categories of activities are explained in Table 2, on page 16, in Part A of these guidelines. The letters and numbers used in approved activities correspond to those detailed in Table 3, Description of Activities, on pages 17–19 of Part A of these guidelines.

Any activity that involves removing fish from the water is prohibited, except where transferring fish for cleaning or rehousing purposes. Removing fish from water to study respiration or circulation is no longer acceptable.

A. Very low impact activities

- **Observation of normal behaviour of fish (Category 1)**

This may include observing activities such as fish swimming, feeding and breathing. Observation does not involve capture and students must not knock on the tank.

- **Fish photography (Category 1)**

This can be conducted either in a small photography tank or in an aquarium. Provide supervision and care when transferring fish to the photography tank and be aware of the heat that may be generated by photographic lights. Very good results can be obtained using a short, telephoto lens fitted to a camera equipped with a 200 ASA film and a good lighting system. A teacher of photography may supervise this activity.

B. Low impact activities

- **Capture, restraint of fish (Category 2)**

To allow some management activities to be carried out, e.g. cleaning of the tank, moving fish to another tank, fish may need to be caught. This should be done using a suitable net and every effort should be made to ensure that fish are out of water for the shortest possible time.

Well established routines should be applied to the care and feeding patterns used in the classroom to both minimise the frequency of cleaning and the moving of fish.

G. Standard husbandry activities

4.1 Slaughter/euthanasia of stock (Category 5)



Royal Agricultural Society of NSW

Sydney Royal Easter Show

**The Show Experience for your Students in
"Australia's largest classroom"**



"2010 Careers in Agriculture Expo"

9.30 am – 3.30 pm, Tuesday 6 April, on the Cattle Judging Lawn

The 2010 Careers in Agriculture Expo, an initiative of the RAS of NSW Youth Group and hosted by The Royal Agricultural Society of NSW, will be held on the Cattle Judging Lawn from 9.30 am – 3.30 pm on Tuesday 6 April.

There is a growing need to promote the career opportunities that exist within agriculture to students. The RAS aims to contribute to reducing the skills shortage in rural NSW by providing access to information about the diverse and exciting careers in agriculture.

The event will provide a platform to encourage young people from rural and metropolitan backgrounds to consider a career in agriculture. It aims to heighten awareness that agriculture is integral to our future and to meeting today's challenges of growing sufficient food more sustainably on less available land.

The Expo will contain a number of speakers and a wide range of organizations both educational (university/college) and industry. The focus of the speakers will be orientated towards young people currently employed in industry and what they are doing now. The event will incorporate a free sausage sizzle for school students competing and exhibiting, and visiting the show.

For further information please contact: Michele Gairn, Manager, Education and Agricultural Development mgairn@rasnsw.com.au Phone (02) 9704 1156 or Heidi Cheney heidi@graingrowers.com.au Phone (02) 9886 2205 Mobile 0428 255 391.



Find out more:

Building on the success of the 2009 inaugural event, the 2010 "Careers in Agriculture Expo" promises to provide bigger opportunities for secondary students, parents and teachers to talk with a diverse range of representatives from universities, colleges, and industry together with recipients of the 2009 and 2010 RAS Rural Achievers' Award program about the extensive career opportunities available to young people, and in particular, to graduates who undertake courses and training connected to the primary industry sector.

Statistics provided by a study undertaken by the Australian Council of Deans of Agriculture in 2007, highlights the critical shortage of agricultural graduates (annual market for 2000 graduates but universities are only providing 800), and forecasts the availability of graduates to reach crisis point by 2012. Demand for people with qualifications related to agriculture and natural resources is expected to rise by 36% over six years. According to a recent survey, in 2011-2012 when the 750 of the 2009 undergraduates complete their 3 and 4 year-degree programs, there will be as there is now three jobs available for each graduate even without any growth in the primary sector (The Land, 19 February, 2009, pp10-11).

Agriculture is central to the key issues we face today - global warming, global food crisis, food and commodity prices, food security, water, carbon, and sustainable use of natural resources.

The "Careers in Agriculture Expo" which focuses on the career opportunities related to agriculture is a most important step towards heightening awareness among young people that the opportunities in agriculture are only limited by their imagination! Go to <http://www.eastershow.com.au/schools/careers-in-agriculture-expo.html>

The Land, p 8, April 16, 2009

Young guns sell ag to students

AGRICULTURE has a bright future, and a group of the industry's young guns has invited Sydney Royal Show patrons to be a part of it.

The inaugural Careers in Ag Expo was hosted by the NSW Royal Agricultural Society (RAS) Youth Group on the cattle lawns on Thursday.

Organiser, Alison McIntosh, Crookwell, said it was pitched at Year 11 and 12 students and had drawn strong interest from schools. She said they aimed to

demonstrate the variety of professions within the field to students who were making decisions about their future.

Participants included TAFE NSW, universities, Tocal College and industry bodies, which provided information and answered questions.

Speakers shared their reasons for entering the industry and the opportunities that were available.

Tocal Agricultural College principal, Cameron Archer, officially opened the expo.

"Our future in the economy and agriculture is with young people," he said.

Visitors were encouraged to keep their options open and explore all the opportunities.

Pictured at the expo are RAS Youth Group members Jillian Kilby, Sydney; Susan Bower, Singleton; Heidi Cheney, Sydney, and Alison McIntosh, Crookwell, with RAS councillor and chairwoman of the agricultural development council, Robyn Clubb.

— KATANA SMITH

Survey from the 2009 Careers in Agriculture Expo: Acknowledgements

"The Careers in Agriculture Expo showed the diversity, the opportunity and the benefits that come from working in agriculture." (NSW Farmers' Association)

"Helpful brochures, the young people giving information about their experiences, the work experience help, and simple straight forward talking." (High School student)

"The Expo was an excellent concept where all visitors were interested in agriculture." (University of New England, UNE)

"The Careers Expo was a great idea, well run, and gave secondary students lots of opportunities to speak with tertiary students and staff from various institutions. A fabulous chance for city students to speak to rural people and those teaching agriculture and careers." (University of Sydney)



2009 Organisations at the inaugural Careers in Agriculture Expo included:

Sponsors:

Grain Growers Association (GGA)

Department of Agriculture, Fisheries and Forestry (DAFF)

Supporters: Education

Faculty of Agriculture, Food and Natural Resources (University of Sydney); Faculty of Veterinary Science (University of Sydney); Rural Focus Group (University of Sydney) Charles Sturt University (CSU); University of New England (UNE); University of Western Sydney (UWS); Tocal Agricultural College; NSW TAFE.

Supporters: Trade

National Australia Bank (NAB); NSW Farmers' Association; Rural Skills Australia; The Northern Australia Pastoral Company; Australian Egg Corporation (AEC); Australian Chicken Meat Foundation (AECF); Meat & Livestock Australia (MLA); Country Energy Australia; Rimfire Pty Ltd; Moppitty Meats, Harden; RAS Foundation & Membership.



See "ABOUT THE HOUSE" podcast "The impact of climate change on farming" containing the 2009 Sydney Royal Easter Show "Careers in Agriculture Expo" and "Rural Achiever Award" program at http://www.aph.gov.au/house/house_news/index.asp



Update

Term 4 2009

News

Cream of the Crop competition

Students are invited to create a PowerPoint presentation about a unit of their studies, why it matters and how it's relevant to everyday life. The competition is open to students in NSW secondary schools and tertiary institutions involved in agriculture, primary industry and natural resource management related studies. Great cash prizes are on offer. See: www.dairyyouthaustralia.com.au/competition

New video on-line

It's well known that growing trees absorb carbon dioxide from the atmosphere through photosynthesis and store the carbon. But did you know a high proportion of the carbon in forest products remains stored in the product for a period of at least 50 years - much longer than previously thought. Join researcher Fabiano Ximenes as he talks about wood, carbon and climate change in our latest video for schools. To view the video go to: <http://www.landlearnnsw.org.au/production-chains/video-case-studies>

Events calendar

Did you know World Fisheries Day is on November 21? Find more natural resource related special dates and events for teachers and students in our new calendar. <http://www.landlearnnsw.org.au/events>

Meet Michele Gairn

What do you do?

I am responsible for managing a range of Royal Agricultural Society of NSW (RAS) schools education programs both inside and outside the Sydney Royal Easter Show.

Best part of my job?

The opportunity to network with the primary, secondary and tertiary education sectors to raise the profile of agriculture and the exceptional career opportunities associated with the primary industries and natural resources sector.



Spotlight:

Total Field Days

Held each year, this event has been running for over 20 years. Enjoy the agricultural exhibits and participate in schools education activities.



Next year the event will run from 30 April-2 May

<http://www.totalfielddays.com/>

Websites

Focus on school gardens

Australian School Gardens Network

<http://austrilianschoolgardensnetwork.ning.com/>

Australian Plant Society

<http://www.austplants-nsw.org.au/index.htm>

Australian Association of Environmental Education

<http://www.aeee.org.au/docs/2004conference/Knight%20D.pdf>

Junior Landcare

<http://www.juniorlandcare.com/>

Life is a garden

<http://www.lifeisagarden.com.au/>

Stephanie Alexander Kitchen Garden Foundation

<http://www.kitchengardenfoundation.org.au/>

Fresh for Kids

<http://www.freshforkids.com.au/>

www.landlearnnsw.org.au

Activity

How much Vitamin C can you see?

Duration: 30 minutes

Objective: To gain an understanding of the importance of vitamins in our diets, especially Vitamin C, and learn how to simply test for its presence.

Background: Vitamins need to be included in our diets because our bodies don't produce vitamins by themselves. Vitamins are essential in small amounts to maintain good health.

Vitamin C is the most commonly used vitamin supplement in Australia. It can't be stored or produced by the body, so it needs to be included in our diet.

Citrus fruits such as oranges, grapefruit and lemons contain Vitamin C as well as tomatoes and green peppers (capsicums).

Other vegetables providing an excellent source of Vitamin C include potatoes, peas, cabbage and cauliflower, snow peas and spinach.

Vitamin C has a reputation for preventing colds and flu. Medical science suggests that it may reduce the symptoms or the duration of the cold but not prevent it.

A lack of Vitamin C has plagued our history with a disease called scurvy, common until the 1900's - especially among sailors and those coming to Australia by boat.

Scurvy is caused by a lack of Vitamin C and the symptoms are - lack of appetite, bleeding gums, loose teeth, swollen ankles and tiny bleeding spots or haemorrhages on the skin.

Scurvy killed 2 million sailors between 1500-1800. By 1800's it was recognised that eating citrus fruits prevented scurvy but it was not until 1928 that scientists discovered the role of Vitamin C.

Student activity: Cooking and processing can destroy much of the Vitamin C in our foods so let's check how much you can see or detect in some different juices and drinks.



Vitamin C reacts with iodine because it uses the iodine up. If starch and iodine are combined the mixture turns a blue black colour. When a food containing Vitamin C is added, the Vitamin C uses up the iodine so the blue-black colour of the starch-iodine combination disappears.

Materials:

- Iodine
- Eye droppers or small plastic teaspoons
- Starch solution (1 teaspoon cornflour dissolved in 1 cup of boiling water). Make up in advance and allow to cool. This solution will be enough for 8 students.
- Enough small containers/cups/test tubes to hold liquids (1 for each food item tested)
- A range of juices to test such as: freshly squeezed lemon juice and orange juice; other fruit and vegetable juices (packaged and fresh, if available), commercial juice drinks and soft drink, crushed vitamin C tablets.

What to do:

1. Predict whether each food/drink will contain Vitamin C.
2. Place paper towel/newspaper on a table.
3. Using eye dropper put about 20 drops or small teaspoon of the starch solution in your cup/test tube.
4. Add 1 or 2 drops of iodine - the water should turn slightly blue.
5. Add food/drink to the starch-iodine solution.
6. If the blue disappears the food contains Vitamin C.

Student Connections: Students are able to explore the world of vitamins through this simple experiment. Some points for discussion and further investigation:

1. Were there any surprising results?
2. Compare the information on the packaged materials with your results - do you agree?
3. Can you devise a way of testing solid foods?
4. Explain why Vitamin C is important in our diet.
5. Investigate why Aboriginal people didn't get scurvy before European Settlement. (Discuss the background to this question, i.e. which, if any, of the foods tested are native in Australia?)

State Agriculture Advisory Group Report 2009

The State Agriculture Advisory Group has been very active in 2009, assisting the DET and teachers of Agriculture with our two core responsibilities; Advising the Finance Directorate on the dispensing of the Agriculture Maintenance Grant to schools in 2010 and assisting and advising the DET Asset Management Directorate on the new tractor contract and the tractor replacement program that has occurred over this year.

Agriculture Grants for 2010

DET schools with Agriculture were asked to complete their survey for Agriculture Grants by October 23, and submit it to the Finance Directorate. The SAAG group will be meeting before the end of Term 4 to consider draft recommendations for the funding of schools for their school's agricultural grant entitlement in 2010.

It is essential to note the following facts about the agricultural grant entitlement;

- 1) The allocation for all schools, in NSW is less than \$500,000 and it is essential for equitable distribution that the numbers are accurate and reported in the format requested.
- 2) Generally the funds allocated to your school are to be used for 2 purposes
 - a) The maintenance of farm machinery and equipment, on your school farm, that are directly used for the agricultural education of the school's students.
 - b) The expenditure of consumables eg. seed, fertilizer that are used for the agricultural education of the school's students.
- 3) The funds are found in the *School Funding Entitlement* which is sent to schools in early term 1 each year, from the DET's School and Regional Financial Operations Unit. The Ag Grant can be found under "Schedule A" in the "Utilities section. Your Principal will be able to tell you the amount that has been given to your school each year.
- 4) The amount you receive is dependent on your school's budgeting policy and is also at the discretion of your Principal who is responsible for your school's finances. It is always a good idea to discuss your school's Agriculture budget, on a regular basis with your Principal, including the allocation and use of the school's annual "Agricultural Grant Entitlement".

This year we have asked for supplementary information relating to the most recently purchased tractor on the school farm and any additional tractor that is owned by the school for such things as grounds maintenance. This is to help with the compiling of the tractor replacement list and ensure that priority list for periodic replacement of the teaching and learning tractor on school farms is accurate.

Additional information was requested for this year only on the number of schools that have farm assistants that are in all schools with Agriculture and the amount of hours they work each week.

We are often asked for advice from schools wishing to start Agriculture, that have not previously offered it and also from schools that have let Ag lapse and wish to revive it. Our ability to assist is limited as there is no structure in place to have the establishment of facilities and equipment funded from the DET, as well as issues such as the employment of Farm Assistants.

Commencing Agriculture in schools without facilities is an expensive operation and we can give only limited advice on some strategies to consider, but in most cases the school has to find the ways and means of providing the facilities through such ways as the BER, Trade Training Facilities which may give the school some options. Once Agriculture is established and is sustainable then the school may be eligible to be able to access the annual "Agricultural Grant Entitlement", as well as being included on the Tractor Replacement priority list.

Replacement of the Teaching and Learning Tractor

The school's Agricultural tractor has been transformed considerably in recent times. The tractor replacement program was non functional between 2002 and 2008, which has created a significant back log of old machines, that are need of replacement. So far 32 schools have received new tractors from the roll-out programs and it is hoped that the DET will be able to fund the replacement of 15 to 20 tractors a year.

However this cannot be guaranteed and it is something we continue to work on with the DET, Long term SAAG members, Phil Hurst, Peter Jones and Craig O'Brien , earlier this year, worked closely with the DET, to test the available tractors, to help determine the tractor that would be available under the new contract.

I would like to thank them for the great work they did in testing the alternatives and providing their wealth of experience and knowledge in helping the DET Procurement Officers arrive at the selection of Kubota as the new supplier of "Teaching and Learning Tractors" to NSW DET Schools for the purpose of teaching students Agriculture on school farms. Peter Jones has done a great job conversing with the Departmental AMU staff to ensure that the tractor priority list was as accurate as possible.

Under the Procurement Guidelines schools wishing to purchase a new tractor for their school farms are required to purchase one of the designated Kubota "Teaching and Learning Tractors" that are on contract. These tractors have all the required safety features that have been installed to ensure that they are safe for students to learn to operate, on school farms, while under teacher supervision.

Safety features include reversing alarms, operating lights, remote control, dump buttons, cut off switches just to name a few. OHS requirements are making it essential that all new tractors that are being used with students have to be fitted with these features and schools are not allowed to vary or disable any of the safety features. The tractors are supplied with a rotary hoe and a mower as attachments.

All equipment has to be purchased through Australian Hammer who was the successful tenderer, and is the Australian importer of Kubota tractors. No negotiations with local Kubota dealers is permitted under the contract.

Schools can purchase these tractors through their school budget or wait until they appear at the top of the priority list for replacement with DET funding. As this is not guaranteed, replacement may take sometime. The new contract also includes training on the operation of the tractor and a 2 year maintenance agreement, with four, 6 monthly services.

The tractors that are available on the contract are listed below, with their prices and photos. Please note that these are photos are the base model, without the fitted safety features.

Kubota has a long history of providing robust and reliable tractors to NSW DET school farms and we hope that continues.

Models of “Teaching and Learning Tractors” available to NSW DET schools

Item 1. Model B2320 Tractor – 17.3KW

Contract Cost: \$21165 + GST



without the grass tyres!!

Item 2. Model L3240 Tractor – 25.4KW

-Contract Cost: \$28990 + GST



Item 3. Model L4400 Tractor – 33.8KW

-Contract Cost: \$29265 + GST



Your Principal may be interested in knowing that a contract was also let with Hammer for items 2 and 3 to be sold without the safety devices for purchase and use as a grounds maintenance tractor, by the school's General Assistant and other approved staff. It is important to note that no student is allowed to use these tractors due to the absence of designated safety equipment.

Updates on this contract and the proposed rollout will be provided as details come to hand over the next 12 months.

Hope you find this information useful. We remain available to help and advise Ag teachers, your supervisors and Principals on matters pertaining to Agriculture in your schools. It is important that we all work to ensure that Agriculture and its related courses, are a central part of your school's curriculum structure.

Peter Crick
Chairperson
State Agriculture Advisory Group
Principal
Muswellbrook High School

SAAG Committee Members are Peter Crick (Chairperson), Phil Hurst – Hawkesbury High School, Peter Jones – Windsor High School, Craig O'Brien – Moss Vale High School & Phil Armour – Yass High School.

Drought Assistance for Schools

On 25 September 2007, a package of drought assistance measures totaling \$714 million to support farmers, small businesses and communities in rural and regional Australia was announced. Part of this package was the Drought Assistance for Schools program which provides assistance in recognition of the financial and social pressures on families and schools located in Exceptional Circumstances (EC) declared areas.

Drought Assistance for Schools provides funding to rural and remote schools in EC declared areas to assist with ongoing education expenses and the cost of educational activities such as student excursions, which may be cost prohibitive for families experiencing financial hardship as a result of the drought.

Funding provided under the Drought Assistance for Schools program may be used to assist with the cost of items such as text books, uniforms, subject levies, excursions, student attendance at extra curricular activities and other educational activities which directly benefits students.

All rural and remote government and non-government schools providing primary or secondary level education located in EC declared areas may be entitled to assistance of up to a maximum of \$10,000 per year.

Each eligible school will receive a base entitlement of \$1,000 plus a per capita allowance of \$100 for every funded enrolled full time equivalent (FTE) student up to a maximum of \$10,000. Drought assistance is provided in the form of a single annual payment.

Schools that wish to query their eligibility can contact the Drought Assistance hotline on 1300 363 079.



North Wagga TAFE Careers Expo in Action (More pictures from page 39)

News from Curriculum Directorate

Digital Education Revolution

Those of you who teach in NSW public schools will by now be well aware of the Digital Education Revolution (DER) and the roll out of laptop computers to Year 9 students. The Technology Unit of Curriculum K-12 Directorate has been delivering professional learning workshops during terms 3 and 4 in 2009 to support teachers in the use of these laptops.

These workshops have been extremely well attended with all workshops fully booked. This means that many teachers have missed out in 2009. Because of this the workshops will be repeated in Term 1 2010.

Finalised details of the 2010 workshop program and registration processes will be available on the Curriculum Support website in Term 4 2009 at:

www.curriculumsupport.education.nsw.gov.au/secondary/technology/ and follow the links to professional learning.

Farmgate

The Technology Unit of Curriculum K-12 Directorate has developed *Farmgate*, a resource specifically for Agricultural Technology.

Farm gate is a system for organising and recording coursework using the *OneNote* package. It has been formatted to fit a DER laptop screen and can be modified it to reflect individual teaching and learning programs by adding enterprises and content.

Not only is *Farmgate* presented at the workshops but a tutorial session on using OneNote is also included. This resource has been well received by teachers and can be downloaded from the Curriculum Support website at

http://www.curriculumsupport.education.nsw.gov.au/digital_rev/technology/agriculture/index.htm

If you would like to share your ideas or resources for *Farmgate* contact Sally Bannerman by telephone 02 9886 7426 or by email sally.bannerman@det.nsw.edu.au

TaLe

The TaLe website has provided support for the DER. TaLe has a dedicated DER-NSW page including 'saved searches' to make finding relevant resources. Examples of these resources include the Tools4U and Laptop wraps. You can find these on the TaLe website at <http://www.tale.edu.au/tale/>

OH&S - Everybody's Responsibility

Watch this Space

In 2010 the Technology unit will be presenting a fortnightly videoconference called *Watch this space* to showcase effective use of the DER laptops and tips for using a range of software.

Again a program will be published on the Curriculum Support website in Term 4. The videoconference will take the form of a broadcast. A sample program is indicated below.

8 February	Andrew Murray, Cranebrook High School and students explain how they are using Microsoft <i>OneNote</i> and Adobe <i>Acrobat</i> portfolios in Agricultural Technology.
22 February	Google <i>SketchUp</i> demonstration and teaching ideas.
8 March	Melinda Waddell, Jamison High School and students explain how they are using Adobe <i>Fireworks</i> in Information and Software Technology.
22 March	Adobe <i>Presenter</i> demonstration and teaching ideas.

Stage 6 Agriculture Syllabus

During 2009 work was completed to revise the Stage 6 Agriculture syllabus by the Board of Studies ready for implementation in 2010 for the Preliminary course.

During 2010 the Technology Unit of Curriculum K-12 Directorate will present a series of professional development workshops to support teachers in the implementation of this revised syllabus.

The workshop program and registration processes will be available on the Curriculum Support website later in Term 4 2009 at: www.curriculumsupport.education.nsw.gov.au/secondary/technology/ and follow the links to professional learning.

Sally Bannerman
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Attention: Stage 3, 4, 5 & 6 Teachers**Dubbo Speech Spectacular**

- Can you talk the leg off a chair?
- Want to share your opinions with the world?or
- Do you just like the sound of your own voice?

Then, turn your talk into cash by entering the Dubbo Speech Spectacular

Debating teams...this one's for you too. In fact the competition is open to all western NSW school students in stages 3, 4, 5 and 6.

The Dubbo Speech Spectacular – What's it all about?

The Dubbo Speech Spectacular is a speech competition being run in conjunction with the NSW Beef Spectacular.

There are two rounds. Round one entrants are asked to prepare a two minute response to one of these topics:

1. That farmers can do little to combat climate change
2. That life in western NSW is better than life in Sydney
3. That farming needs a make over

The top 8 speakers from round one will have their work published by Industry & Investment NSW (I&I NSW) and be invited to deliver a two–three minute grand final speech about a given topic at the NSW Beef Spectacular, 5 March 2010, Dubbo Showground; competing for some great cash prizes.

The grand final topic will be released prior to the event to allow finalists time to prepare a speech. Grand final winners will be announced 5 March.

Grand final speeches will be recorded and published. The judging panel will consists of reps from – The Land, I&I NSW and LandLearn NSW.

Prizes on offer

There is a total of \$3,000 dollars in prize money on offer as follows:

Grand final winners receive:

- Upper primary (Stage 3) - first prize \$500, runner-up \$250
- Junior High (Stage 4) - first prize \$500, runner-up \$250
- Middle High (Stage 5) - first prize \$500, runner-up \$250
- Senior secondary (Stage 6) - first prize \$500, runner-up \$250

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Industry &
Investment



THE LAND

Dubbo Speech Spectacular

Things to know

- Entry is free
- The competition is open to students in all NSW schools (both government and non-government).
- Complete and send in an entry form ASAP
- Round one entries close December 16
- Entries can be posted to Carmen Perry, PO Box 344 Hunter Region Mail Centre, NSW, 2310 or emailed to carmen.perry@industry.nsw.gov.au
- File format for speech entries MP3
- Entrants can be individuals or teams of up to 3 (consisting of 1 speaker and 2 supports/researchers)
- Individual finalists, their accompanying teacher and a family member will be invited to attend the grand final at the NSW Beef Spectacular March 5 2010.
- Finalists teams, their accompanying teacher and up to 3 family members will be invited to attend the grand final at the NSW Beef Spectacular March 5 2010.
- Finalists will be teamed up with an industry expert (subject mentor) to assist with final speech research
- Finalists must arrange their own transport to the grand final
- References and further information can be found at:
<http://www.landlearnsw.org.au>
- Contact Carmen Perry, Industry & Investment NSW; ph: 02 4931 6540, carmen.perry@industry.nsw.gov.au for more information.

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Investment



THE LAND

<http://www.landlearnsw.org.au>

Fax back entry form Dubbo Speech Spectacular

FAX TO Carmen Perry	FROM
FAX NO. 02 4933 0772	
DATE	PAGES (INCL. THIS PAGE)
SUBJECT Dubbo Speech Spectacular – entry form	

This message is intended for the addressee named and may contain confidential or privileged information. If you are not the intended recipient, please notify the sender and delete the message. Views expressed in this message are those of the individual sender.

We would like to participate in the Dubbo Speech Spectacular. We understand our entry may be published on-line and the grand final will be held at the NSW Beef Spectacular at March 5, 2010 at Dubbo Showground.

Entrant(s):

.....

.....

Supervising teacher:

School:

Address:

.....

..... Post Code

Contact phone number

Contact fax number

Email:

Entry category (as at time of entry in 2009). Please circle:

- Upper primary (years 5&6)
- Junior High (years 7&8)
- Middle High (years 9&10)
- Senior secondary (years 11&12)

.....

Signature

Date

PAGE

3 of 3

RITE Online Project

The Proposal

Use e-learning modes to deliver and supply existing units of competency into national schools market.

The Details

What is the product that would be involved?

Existing training materials, redeveloped for online delivery & distribution. Materials would be delivered/distributed in a combination of ways:

Theory Practical Distribution

Underpinning theory components of unit accessed via online portal for school for non credit purposes. Assessment Tasks related to practical aspects of unit are accessed via online portal for credit purposes.

Delivery

Underpinning theory is delivered online by RITE for credit purposes. Practical skills training is delivered through face to face training delivered by RITE (eg, at school).

The product, while delivered/distributed to schools, is packaged to enable schools to as easily cater for a whole cohort (eg, a Yr 9 Agriculture class working through a non-credit program) as it would an individual student (eg, a Yr 11 student who is seeking an alternative offering to the schools academically focused subject offerings).

Where would it be delivered/distributed?

Via online means, the materials related the theory components, and the assessment instruments of the practical components can be delivered/distributed to anywhere that possesses a modem.

Delivery of face to face practical training and/or practical assessment would be limited by the same factors that limit current on-site delivery of practical training via means.

When would it be delivered/distributed?

Once an agreement has been reached, the client is able to access online materials once they have an account established in the learning management system, a task that takes about 5 minutes.

It is plausible to create a pay-and-enrol system, where enrolment in a unit occurs immediately on payment through the site, eg, via PayPal

How would it be accessed?

Users of the materials would be provided with individual logons to access material via the *RITEOnline* site. Depending on the number of students participating at a particular school, they may be provided with their own site that has links to only the courses that they require.

Why would schools want the product?

This product would offer a solution to the lack of qualified teachers and the low retention rates makes it difficult for schools to develop any continuity within their agriculture-related programs of study.

-Optional involvement for individual students creates easier opportunities for Queensland schools to meet their obligations in the Senior Phase of Learning.

-The progressive nature any individuals participation (from non-credit theory to complete qualification) allows schools to respond to needs of individual students with convenience.

-Students may be engaged through a relevant curriculum that is directly linked to traineeship and employment opportunities.

-School for a competitive edge.

I trust this finds you well.

Bryan

- on behalf of RITE

Dr Bryan West
Fortress Learning
PO Box 13081
George Street Q 4003
Australia
M: 0429 145 208
F: 07 3112 4088

Leigh White, Gilbert Robertson & Nick
Cooper from The Riverina Anglican College
at the

**2009 RURAL CAREERS EXPO at TAFE
at North Wagga Primary Industries Centre**

Lachlan McKenzie with ABC Rural Reporter Anna Vidot



RURAL CAREERS EXPO at TAFE at North Wagga Primary Industries

Thanks to Ian Begg from The Riverina Anglican College (TRAC) for this interactive piece.

Over 70 Students from across the Riverina attend the Rural careers expo held at TAFE Nth Wagga Primary Industries Centre. Students travelled from Griffith and the surrounding Wagga district to attend this fantastic day.

The day was very practical ranging from motorbike riding through to fencing as well as animal husbandry. The students were also given opportunities to get their hands dirty by doing some paving and seeing the whole of the wool process from paddock to factory. Budding agronomists were given an in depth talk on plants and all the associated industry terminology.

Some of the feedback was....

According to Al McMillian from Wagga Wagga High School stated "the day was a huge success, the kids really go into it"

Rob Harris from TAFE said "it was great to see all the students get in and have a go"

Ian Begg from The Riverina Anglican College stated that it was great for the student to get a hands on practical look at the diverse career opportunities that are on offer in the Agricultural area.



Brick by Brick Briarna Tye (TRAC)



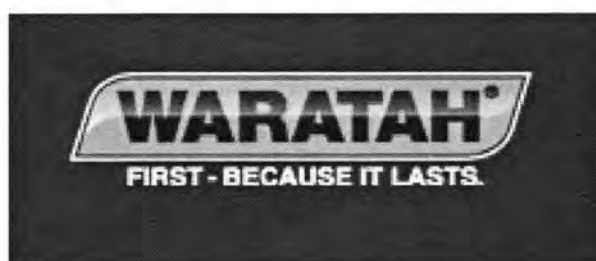
Kym Thomas – Head Teacher Horticulture, TAFE



TRAC Girls on the go!!!



Lachlan McKenzie (TRAC), Soner Hasgul (Griffith) & Brodie Neville (TRAC) the next Waratah Fencers.





UWS HAWKESBURY FOUNDATION LTD

PO Box 342

RICHMOND NSW 2753

Phone (02) 4570.1525

Facsimile (02) 4570.1403

HAWKESBURY COMMUNIQUÉ

We, the participants of the conference called FEEDING SYDNEY, held at the Hawkesbury campus of the University of Western Sydney, (UWS), on 24 September 2009, come from a wide range of groups all interested in future supplies of good food.

We note with concern the following facts relating to the complex issues of “Feeding Sydney”:

1. Demand for food is growing. World population is estimated to grow from the current 6.8 to 9.5 billion by 2050, leading the UN to predict that global food production will need to double to feed both increased population and improved food intake per capita in developing countries.
2. The resource base underpinning agriculture is threatened. This doubling of food production needs to occur in the face of:
 - i) A continuing degradation in the bio-physical resource base.
 - ii) Threats to the integrity of the world’s ecosystems.
 - iii) Growing scarcity of key inputs such as land, water, energy and human resources.
3. We are unprepared for this looming challenge at both local as well as international levels and lack an understanding of the impacts international factors will have on Australia. Australia does not have a national framework for policy and strategic planning to address food security nor a clear understanding of the nation’s role in producing its own food or in assisting other countries to feed themselves.
4. Australia is complacent about the challenges to food security. There is a lack of appreciation by society in general of the challenges to future food security, and there is a lack of appreciation of the interconnectedness of environment, agriculture, food and health.

We believe Australians need:

1. A National Food Strategy. The strategy should plan for future food security to 2030. It should incorporate policies relating to the natural resources underpinning agriculture such as land, water, energy and human resources. Key linkages between food and environment, and food and health, would be central to the strategy.
2. Increased priority should be given to education and public engagement activities to promote an understanding of food security and its imperatives. These activities need to focus on human health, food and nutrition, climate change, water, energy and carbon, and the integrity of ecosystem services.
3. Increased investment is required in research and development appropriate to future food security. Existing data on the resources utilised in agriculture and food are fragmentary, yet these data are required to plan the future allocation of resources where there are competing claims on land and water resources between food and energy, or food and urban expansion. There needs to be better integration of policy, science, planning and practice.

4. The role of fresh healthy food in reducing chronic diseases such as heart disease, diabetes, cancer and obesity needs to be promoted. Greater awareness by urban consumers of the agrifood systems that support their lifestyles is needed as part of heightened appreciation of the role of rural communities. Public education programs need to target all stakeholders in the food supply chain; producers, processors, wholesale, retail, service industries, and consumers.

Specific points contributed from delegates:

Demand increasing

- Population increasing between now and 2050; global from 6.8 to 9.5 billion, Australia from 22 to 35 million, NSW from 6.9 to 10.2 million, Sydney from 4.3 to 6.9 million.
- Australia has been a major exporter of food. As more countries look to import food, Australia will be expected to continue as an exporter.
- Rising living standards in developing countries lead to changes in diet, including more protein based foods requiring more input resources.

Future supply threatened

- Climate change results in less rainfall, higher temperatures and much less water for irrigating agriculture.
- Increase in energy costs due to scarcity and policy responses (Emissions Trading Scheme) will force changes in farming practices and drive up cost of food.
- Competing claims on land for mining (coal) or urban expansion takes some of our most productive land permanently out of food production.
- Human capacity constraint to future food security. Need to find ways to attract more young people into agrifood systems.

Policy initiatives

- Need a clear definition of food security that is widely supported. For example, food security incorporates elements of food supply, but also includes access and affordability issues.
- Need coordination of food policy at national, state and local levels.
- Food security can not occur without water security.
- Review international developments in food policy, for example the integration of environment, agriculture and health in Canada.
- Promote regional decentralisation of population.

Planning initiatives

- Need for better, more reliable evidence in planning, particularly with respect to sustainability of resource use (land, water, energy).
- Planning laws and regulations to support local agriculture, incentives to farm.
- Sydney Basin agricultural land is a special case with specific circumstances requiring specific planning response that considers a wide range of values (food, environment, aesthetic, recreational, educational, community)
- Coordination between NSW government and local governments in land use planning/zoning.
- Establish agricultural precincts to avoid land use conflicts.

Research initiatives

- Facilitate data sharing and coordination between government agencies, universities and private sector.
- Research aimed at supporting the planning process. For example, applying science to resolve conflict over resource use.
- Improved methods/technology for using recycled water and recycled organics in food production systems.
- Quantify ecosystem services so these services can be valued in land use planning.
- Improving efficiency of resource use in agrifood systems.
- Research to quantify trade-offs so rational decisions can be made.

Educational initiatives

- Consumers require education on sustainability of agrifood systems.
- Educate consumers on their rights and responsibilities as food consumers, promote concept of food citizens.
- Campaign to promote consumption of fresh fruit and vegetables. Buy local first, Australia second.
- Campaign targeting reduction of waste of water and food at the household scale.
- Industry targeted education for transforming the agrifood sector.
- Human capacity constraints in agrifood systems need to be addressed. Somehow need to attract more students into agrifood courses at TAFE and university level.

Community development

- Give greater priority to community cultural development associated with local food systems.
- Need to consider social equity of agrifood systems.
- Marketing of local food systems.
- Equity for small producers compared to large producers.
- Support home gardeners to increase food self-sufficiency.
- Social inclusion and social responsibility legislation.
- Encourage and support grower organisations and direct marketing.

Other

- Need to minimise waste across the food supply chain.
- Food labelling to assist consumers in their food choices, sustainability and/or health related.
- Require 'champions' or 'leaders' to drive process of change.
- Clearly label Australian grown and manufactured food.
- Acknowledge the urgency.

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Media Release

Buttercup and Chocolate steering students to Careers in Cows!

Years 8, 9, 10, 11 & 12 Agriculture students from Griffith High school have been given the opportunity to raise two dairy calves and investigate the many different job pathways and opportunities that are linked with this industry from an initiative from Dairy Australia.

Agriculture teacher, Carl Chirgwin said "The project allowed students to gain the hands-on skills with raising two young dairy calves. Students had to feed the calves twice a day, maintain their housing, record their daily growth, weigh them each week and maintain their mineral feed and water levels. The cows were donated by Malcolm & Jenny Holmes of Finley.

Our students suggested that Kalinda School become involved in this project, this they did, coming over for a week and feeding them.

The year 9/10 agriculture class are now putting together a 'bullseye' type career poster to link thirty dairy titled careers. Students have researched individual employment titles, training required, years to do the training and where the training can be completed".

This project has strengthened partnerships between Griffith High School, Kalinda School, Griffith Enterprise Business Advisory Council Inc (GEBAC), Holmes Dairy and Dairy Australia.

Sue Golsby-Smith from Griffith Education and Business Advisory Council (GEBAC Inc) said "Adopt a School Projects funded by the Australian Government Department of Education, Employment and Workplace Relations give young people the opportunity to have are hands on experience in many different careers.



Kate Woolfe and Michael Conway from Griffith High School
feeding Chocolate and Buttercup



Media Release

‘Students in White Lab Coats’

Year 10 Science students from three Griffith schools; Wade High School, Marian Catholic College and Griffith High School have been in the laboratories at schools, Riverina TAFE Institute and local wineries measuring and testing their way to the many careers available using these skills.

Warburn Estate, De Bortoli Wines, McWilliams Wines and Casella Wines are four local Griffith wineries partnering with TAFE NSW Riverina Institute Griffith Campus, Griffith secondary schools and Griffith Enterprise Business Advisory Council Inc (GEBAC) in a, ‘Adopt a School’ project funded by the Australian Government Department of Education, Employment and Workplace Relations.

Sue Golsby-Smith from GEBAC Inc said “Students have had the opportunity to have a ‘hands on’ experience using lab equipment and testing different solutions to create results similar to what the wine industry uses in their laboratories.”

The series of project that have been happening over this term have included demonstration from experience laboratory people, testing and experimenting at the Labs at TAFE and tours of the wineries.

The big finale which was held on the 29 September 2009 at Griffith TAFE included students from the three high schools testing school made wine to produce a final set of results from various testing methods. They also got the opportunity to hear from industry people talking about the various careers especially about the ones involving lab skills.

Lab Manager from McWilliams Wines, Sharni Hill said “These series of projects have given students a better understanding of what it might be like to work in a lab at a winery and to consider furthering their career and go down the path of winemaker or technical support.”

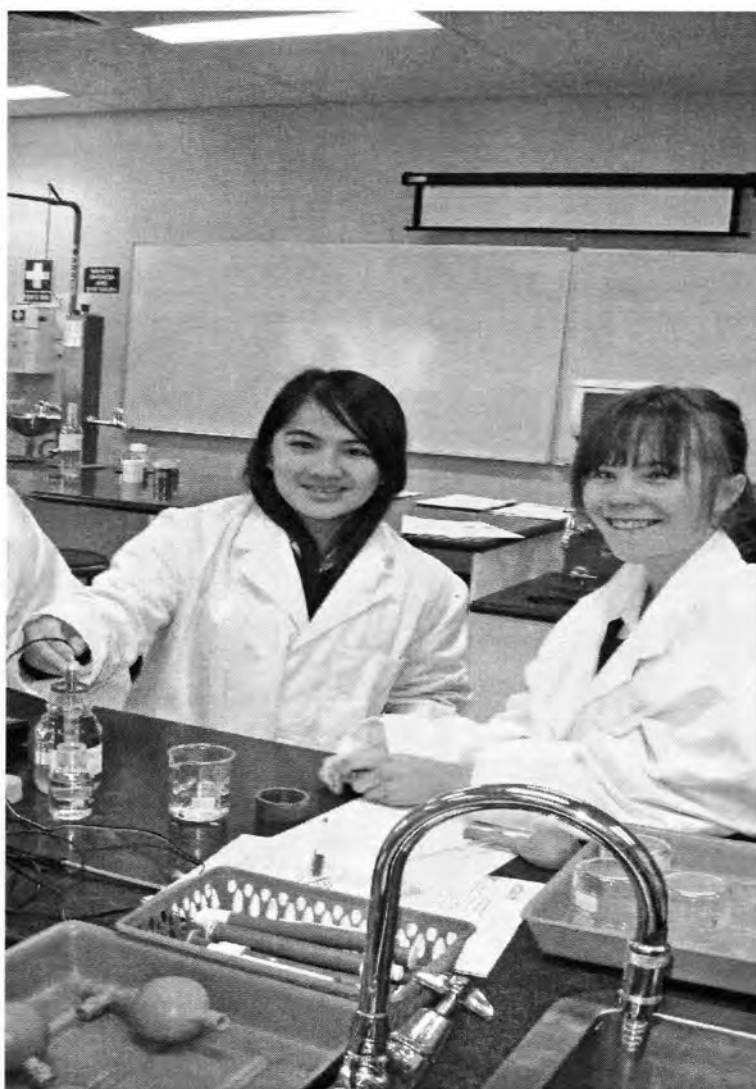
Sue Golsby-Smith also added that “Students having participated in these projects may consider doing the Lab Skills course offered at TAFE for Years 11 and 12. It would be great to have some young people skilled in this area ready to work in the labs at our local wineries as soon as they leave school”.

Contact:

Sue Golsby-Smith
GEBAC Inc
Phone (02) 6964 3999



Blake Dwight & Chris Hart from Griffith High School
with Rena Connellan from McWilliams Wines.



Wade High Students Jessica Wu and Rebecca Blake testing at TAFE Griffith Campus



Griffith High School students in action at McWilliams Winery with Laboratory personnel Annette Phillpot and Sharni Hill, Laboratory Manager.

Editors Note:

This project can be easily repeated in other schools or clusters of schools.

From this project, Griffith High School is in the process of finalising a student to complete a School Based Traineeship in Sampling & Measurement as part of their Higher School Certificate in 2010 & 2011.



HSC Agriculture CD Availability

The HSC agriculture CD contains material from the popular DET distance education booklets in the form of pdfs. Some sections have been replicated as interactive htmls.

There are links to relevant websites and exercises to complete and return to the teacher.

The aim has been to try and make this material as flexible as possible for use in a variety of classroom contexts, particularly with the upcoming release of laptops into schools.

If you have a DET login and password you can download this resource **free** from the TaLE website.

For the cost of \$50 you can also purchase the CD from the CLI catalogue:

http://catalogue.cli.det.nsw.edu.au/cli/catalogue/main_pages/product_detail.aspx?operation=view_form&resource_id=8908-1

I am now working on the Preliminary Agriculture CD which should be available next year so any feedback would be appreciated.

Su Annetts
Learning Design Officer TAS
Centre for Learning Innovation

51 Wentworth Road, Strathfield NSW 2135
Ph: (02) 9715 8259 Fax: (02) 9715 8279

Email: Susan.Annetts@tafensw.edu.au

www.cli.nsw.edu.au



Australian Agricultural College Corporation

In 2009 the Australian Agricultural College Corporation visited more than 300 schools throughout the East Coast of Australia to talk to students about careers in Agriculture.

Now is the time for schools to book in a visit in 2010 where experienced presenter Lara Wilde can spend the day at your school talking to students during classes, meal breaks or teachers and parents at career evenings'. Lara's presentations range from 10 minutes to 45 minutes and incorporate;

- ✦ Questions and answer time,
- ✦ Movies of the Australian Agricultural Campus,
- ✦ Information about the Agricultural industry,
- ✦ Personal accounts of life in the Agricultural industry, and
- ✦ Numerous resources for students, parents and teachers to take home.

In 2009, overwhelmingly the majority of students and teachers thought of a career in Agriculture as being little more than driving a tractor or chasing a cow, and due to the media coverage of the drought they did not feel there were many employment opportunities to be found within the Agricultural industry.

During Lara's visit students and teachers learnt about:

- The many career paths within agriculture which included science, marketing, fashion design, engineering and business management;
- Predicted employment opportunities including genetic modification, conservation and land management and human resource development;
- Life as a student at the Australian Agricultural College;
- Opportunities to have prior learning recognised by the Australian Agricultural College contributing to their qualification;
- Career paths available covering succession planning, tertiary education and how a Diploma at the Australian Agricultural College which requires a student to be 15 years old to enrol can lead to credits and entry into a University program.

For many students who were unsure of where they would like to study and those who did not qualify for the University course of their choice this was a way for them to access a tertiary education.

If you would like to book a presentation for your school, career evening or community group please contact Lara Wilde on 041 777 99 17 or email at lara.wilde@bigpond.com as she is looking to inspire you about a career in Agriculture today.

www.aacc.edu.au

Recognition of your life's work.

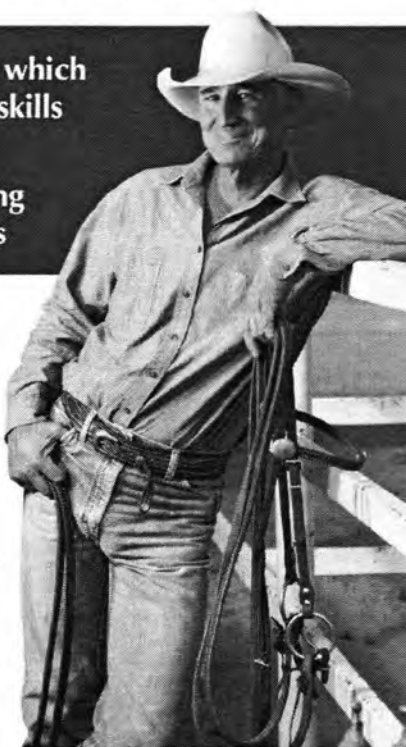
In these times of economic uncertainty there has never been a better time to gain formal qualifications without the need to undertake any study.

- Gain a qualification which recognises your life skills and experience
- Upgrade your existing formal qualifications

The Australian Agricultural College Corporation's (AACC) recognition of prior learning (RPL) program is designed to help you quickly gain formal qualifications in agriculture, horticulture, meat processing or conservation and land management using evidence based methods.

RPL is an ideal way to gain or upgrade a nationally recognised formal qualification without having to study.

Don't delay ... act today and call Rick Cronin on Tel (07) 4672 3000 for a no-obligation chat about the great possibilities that are available to you!



www.aacc.edu.au


AACC
Australian Agricultural
College Corporation

Matching qualifications to your current position or industry level of skills and experience:

QUALIFICATION	INDUSTRY LEVEL
Advanced Diploma (Level 6)	• Corporate/Senior Manager • Business Owner
Diploma (Level 5)	• Business Manager • Business Owner
Certificate IV (Level 4)	• Supervisor
Certificate III (Level 3)	• Tradesperson (Person able to work with minimal supervision)
Certificate II (Level 2)	• Person working under supervision • Trade Assistant • Farm Work • Trainee
Certificate I	• Trainee

Qualifications assessed by recognition of prior learning (RPL):

AGRICULTURE

- Certificate II Rural Operations
- Certificate II, III, IV, Diploma in Agriculture (General)
- Certificate III, IV, Diploma specialising in Beef Production
- Certificate II, III, IV, Diploma in Production Horticulture
- Certificate IV in Rural Business
- Diploma in Rural Business Management

MEAT PROCESSING

- Certificate I, II, III in Meat Processing (Meat Retailing)

HORTICULTURE

- Certificate II, III, IV, Diploma in Horticulture (General)

CONSERVATION AND LAND MANAGEMENT

- Certificate II, III, IV, Diploma, Advanced Diploma in Conservation & Land Management

Contact: Rick Cronin, RPL Coordinator
Phone: (07) 4672 3000 E-mail: rick.cronin@aacc.edu.au

www.aacc.edu.au



Queensland
Government



AACC
Australian Agricultural
College Corporation

DAS/AC 9/05/19



2010 Agriculture Camp Programs

The following itineraries have been suggested by members of the NSWAAAT as meeting Syllabus outcomes.

They are not fixed and can be changed to include or exclude activities where requested. All activities have been mapped to syllabus outcomes and can be supplied to you when applying for approval to school management.

Camp duration of 4 days is suggested only. Camps may be extended with extra site visits or integrated with skills training or shortened if required to fit in with school timetables as necessary. Catering is included, although a self catering option is also available.

Agriculture Camp information packs include Risk assessments for each site and activity included in the itinerary.

Some activities will also include student assessment tools and written activities to enhance student learning.

A 22 seater bus and Tour guide/driver is part of the Ag camp package. Local pick up for schools within a 100km radius of the Centre is also included.

Prices vary depending on activities chosen, group size and length of stay, a quote can be provided upon application.

Please refer to our Accommodation and Conference facility brochure or our website www.mrsc.nsw.edu.au for information on bunk house accommodation available on site suited to school groups.

If you are interested in booking a Camp at MRSC, receiving information for funding sources or just finding out more please feel free to contact me to discuss your needs.

Simone Fuller
Coordinator – Training & Promotions
NSW Department of Industry & Investment
Murrumbidgee Rural Studies Centre
Ph: 02 6951 2544 / Fax: 02 6951 2616

Junior Agriculture Camp Suggested Four Day Itinerary

Day 1 – Leeton Day

Centre Bus to pick up students (if school is within 100km radius of Yanco)

Morning –

Sunrice Tour, (Check in at Centre)
Lunch (Provided by Centre)

Afternoon –

Lillypilly Winery, Ricefarm Visit, Webster's Walnuts Tour.
Optional – Introductory skills workshops – ATV (must be over 16),
Tractor operation, small motors etc
Free time at the Centre
Dinner at the Centre

After dinner extension activity –

Sheep Feed Calculator Computer Simulation

Day 2 – Narrandera

Morning –

Rockdale Feedlot, Wyreema Kelpie Stud
Lunch – Tour at Narrandera Bakery and then lunch purchased by students

Afternoon –

NSW State Forestry Horticulture Workshop
Optional – Lavender Farm
Dinner at the Centre
After dinner entertainment – Movie night

Day 3 – MRSC

Morning –

Beef Cattle/Sheep Handling, Soils Lab/Soil Pit
Lunch at the Centre

Afternoon –

Salinity Workshop, Plant Trial & Cultural Walk, Silage Pit/Haymaking processes

Optional – Agroforestry, Irrigation demonstration, Integrated Pest Management talk
Dinner at the Centre or in Leeton as an option to be purchased by students After dinner entertainment – Disco/Dinner at Leeton

Day 4 – MRSC/Leeton

Early Morning – Check-out

Morning –

Reading a Chemical label/MSDS, Visit to Pacific Fresh
Lunch to be purchased by students in Leeton

Afternoon –

Leave for home on Centre buses

What's Happen'ing in My Paddock?

In this issue I am focusing on Griffith High School's Preliminary Agriculture course.

Included for your utilisation is the current Scope & Sequence that we use at Griffith High School, a different method to present the Plant & Animal Production assessment tasks, and, some 2009 Year 11 students harvesting Oats in their Fertiliser trial.



Griffith High School Year 11 Agriculture Class' Preliminary Plant Trial

Stage 6 – Year 11 Agriculture (Preliminary Course) – Scope and Sequence – 2009

Term	Week	1	2	3	4	5	6	7	8	9	10
1 2009	Unit	Overview Of Agriculture (OA)					Farm Case Study (FCS)				
	Content	Agricultural Systems	Black Box Models	Climate & Soil Mapping	Agricultural History	Social Aspects	Farm Management	Marketing of Products	Technology & Safety	The Farm as a Production Unit (Field Trip)	
	Assessment & Weight						Open Book Unit Test			Farm Case Study Assessment Given	Establish Plant Trial Assessment
	Outcomes	P1.1 – Describes the complex, dynamic and interactive nature of agricultural production systems P1.2 – Describes the factors that influence e agricultural systems P2.3 – Describes the farm as a basic unit of production					P3.1 – Describes the role of decision-making in the management and marketing of agricultural products in response to consumer and market requirements P5.1 – Identifies the role of associated technologies and technological innovation in producing and marketing agricultural products				
2 2009	Unit	FCS	Plant Production (PP)							AP	
	Content	Animal Welfare	Experimental Design & Research	Plants and their Commercial Production	Half Yearly Preparation	Animals, Climate and Resources Interactions		E. Rainfall & the Growing Season	Microbes & Pests	Technology (R&B)	Plants, Climate and Resources Interactions
	Assessment & Weight	Farm Case Study Assessment Due 15%	CWFS Trial Establishment - Rankin Springs Field Trip	Plant Production Trial Assessment Given	Half Yearly Exam 15%					Plant Production Trial Assessment 15%	
	Outcomes	P1.1, P1.2, P2.3, P3.1, P5.1	P2.1 – Describes the biological and physical resources and applies the processes that cause changes in plant production systems P3.1 – Describes the role of decision-making in the management and marketing of agricultural products in response to consumer and market requirements					P4.1 – Applies the principles and procedures of experimental design and agricultural research P5.1 – Identifies the role of associated technologies and technological innovation in producing and marketing agricultural products			
3 2009	Unit	Animal Production (AP)							Y. Prep	Yearly Exams	
	Content	Plants, Climate and Resources Inter.	Animals and their Commercial Production		Microbes & Pests	Animal Welfare, Ethical & Legal Requirements		Technology			
	Assessment & Weight		Animal Production Assessment Given					Animal Production Assessment Due 15%	Yearly Examination 40%		
	Outcomes	P2.2 – Describes the biological & physical resources and applies the processes that cause changes in animal production systems P3.1 – Describes the role of decision-making in the management and marketing of agricultural products in response to consumer and market requirements					P5.1 – Identifies the role of associated technologies and technological innovation in producing and marketing agricultural products			All Preliminary Outcomes	



GRIFFITH HIGH SCHOOL PRELIMINARY COURSE ASSESSMENT TASK

Year 11 Term 2 2009
Agriculture
Preliminary Assessment Weighting: 15%

OUTCOMES TO BE ASSESSED

Outcome Number	Outcome Description
• P2.1	Describes the biological and physical resources and applies the processes that cause changes in plant production systems.
• P4.1	Applies the principles and procedures of experimental design and agricultural research.
Course Components and Weightings Selected	
Component	Weighting
❖ Plant Trial – Scientific Report and Pest/Disease – Extended Response	15%
Total Preliminary Assessment Weighting	15%
Total Marks	72
Assessment Task	
Task - There are three parts to this assessment task (see the following pages)	

Part A Task

Plant Trial

You need to write a full scientific report for the oat cereal trial that is being conducted at The Griffith High School Farm in 2009.

You need to include:

- Aim, Date of Planting, Equipment, Method, Results (directed guide provided), Conclusion, Discussion and Seasonal Changes.
- You need a whole page sketch of the trial plots with the area & contents of each plot.

Results

- a) Provide a table of the densities of each plot in regards to plant populations.
- b) Column graph the average plants/plot as per the densities results table.

Discussion

- Q1) **Describe** the concept of the control plot.
- Q2) **Outline** the processes/practices involved with the completion of this trial.
- Q3) **Identify** the contents of 'Starter' Fertiliser with each chemical symbol.
- Q4) **List** three improvements too this trial for future use.
- Q5) **Discuss** the benefits of this trial to local landholders, educators and the general public.

Part B Task

Plant Pests/Diseases

Provide a 3-5 page extended response answering the following questions using correct agricultural terminology.

1. **Identify a pest/disease with its scientific name which effects the production of a cereal plant** (i.e. oats, wheat, triticale, rye or barley)
2. **Illustrate and label the life cycle of this pest/disease**
3. **Research the problems associated with this pest/disease**
4. **Research the management strategies appropriate to the pest/disease and argue for the merits of the strategies used**

Part C Task

- A bibliography is a list of references or sources that were used to complete a given task.

Plant Production Assessment Task Key Terms

<u>Term</u>	<u>Indicator</u>
Calculate	Ascertain/determine from given facts, figures or information
Describe	Provide characteristics and features
Discuss	Identify issues; provide points for and/or against; provide a conclusion
Explain	Relate cause and effect; make the relationships between things evident; provide why and/or how; provide a conclusion
Identify	Recognise and name
Illustrates	Provides a diagram or figure
Lists	Provides a sequenced list of terms, objects or products
Outline	Sketch in general terms; indicate the main features of
States	Name of term

Plant Production Assessment

Marking Criteria

Part A

Plant Trial

You need to write a full scientific report for the oat cereal trial that is being conducted at The Griffith High School Farm in 2009.

You need to include:

- Aim, Date of Planting, Equipment, Method, Results (directed guide provided), Conclusion, Discussion and Seasonal Changes.

12 marks = Aim (1), Date of Planting (1), List of equipment (2), Step by step Method (3), Comprehensive conclusion (3) and Seasonal Changes in regards to Day-length and Rainfall (2)

Your Mark and Teacher's Comment:

- You need a whole page sketch of the trial plots with the area & contents of each plot.

4 marks = Heading on the sketch (1), ruled lines (1), correct scale (1) and a key (1).

Your Mark and Teacher's Comment:

Results

a) Provide a table of the densities of each plot in regards to plant populations.

12 marks = Completed No. Plants/m² for each trial (3), Completed weight for Plants/plot for each trial (3), Calculated average for Plants/m² (3) and Calculated average for weight for Plant/plot for each trial (3).

Your Mark and Teacher's Comment:

b) Column graph the average plants/plot as per the densities results table.

5 marks = Heading on column graph (1), correct labelling on vertical & horizontal axis (2), correct columns created (1) and a key (1).

Your Mark and Teacher's Comment:

Discussion

Q1) Describe the concept of the control plot (2 marks).

2 = *Describes* two features or characteristics of its use

1 = *Identifies* one feature or characteristic of its use

Your Mark and Teacher's Comment:

Q2) Outline the processes/practices involved with the completion of this trial (2 marks).

2 = *Outlines* two main processes or practices involved in the trial

1 = *Identifies* two main processes or practices involved in the trial

Your Mark and Teacher's Comment:

Q3) Identify the contents of 'Starter' Fertiliser with each chemical symbol (3 marks).

3 = *Identifies* three chemicals with their chemical symbol

2 = *Identifies* two chemicals with their chemical symbol

1 = *Identifies* one chemical with its chemical symbol

Your Mark and Teacher's Comment:

Q4) List three improvements to this trial for future use (3 marks).

3 = *Lists* three improvements of the trial for future use

2 = *Lists* two improvements of the trial for future use

1 = *Lists* one improvement of the trial for future use

Your Mark and Teacher's Comment:

Q5) Discuss the benefits of this trial to local landholders, educators and the general public (5 marks).

- 5 =** *Discusses* at least three points for the question with a conclusion and *explains* the learning undertaken.
4 = *Discusses* at least three points for the question with a conclusion.
3 = *Discusses* at least two points for the question with a conclusion.
2 = *Discusses* one point for the question with a conclusion.
1 = *Discusses* one point for the question.

Your Mark and Teacher's Comment:

Part B

Plant Pests/Diseases

Provide a 3-5 page extended response answering the following questions using correct agricultural terminology.

- 1. Identify a pest/disease with its scientific name which effects the production of a cereal plant** (i.e. oats, wheat, triticale, rye or barley) (2 marks).

- 2 =** *Identifies* a pest/disease effecting the production of a cereal plant, stating its scientific name in the correct manner.
1 = *Identifies* a pest/disease effecting the production of a cereal plant or states its scientific name in the correct manner.

Your Mark and Teacher's Comment:

- 2. Illustrate and label the life cycle of this pest/disease** (3 marks).

- 3 =** *Illustrates* and correctly labels the complete life cycle of your identified pest/disease of a cereal plant.
2 = *Illustrates* and correctly labels the most of the life cycle of your identified pest/disease of a cereal plant.
1 = *Illustrates* the life cycle of your identified pest/disease of a cereal plant.

Your Mark and Teacher's Comment:**3. Research the problems associated with this pest/disease (6 marks).**

- 6 =** *Describes* when the pest/disease strikes the plant in regards to germination, normal growth flowering period etc, *lists* at least two developmental stages that occurs, *states* its favourable conditions for production, *explains* the economic problems that exist with its control and *outlines* the long-term egg-bank problems which may exist.
- 5 =** *Describes* when the pest/disease strikes the plant in regards to germination, normal growth flowering period etc, *lists* at least two developmental stages that occurs, *states* its favourable conditions for production and *explains* the economic problems that exist with its control.
- 4 =** *Describes* when the pest/disease strikes the plant in regards to germination, normal growth flowering period etc, *lists* one developmental stage that occurs and *explains* the economic problems that exist with its control.
- 3 =** *Describes* when the pest/disease strikes the plant in regards to germination, normal growth flowering period etc and *explains* the economic problems that exist with its control.
- 2 =** *Identifies* when the pest/disease strikes the plant in regards to germination, normal growth flowering period etc and *lists* one developmental stage that occurs.
- 1 =** *Describes* when the pest/disease strikes the plant in regards to germination, normal growth flowering period etc or *lists* one developmental stage that occurs.

Your Mark and Teacher's Comment:

4. Research the management strategies appropriate to the pest/disease and argue for the merits of the strategies used (9 marks).

- 9 =** *Outlines* the methods for its control, *discuss* three points for and against the strategies undertaken, *calculate* the expenses involved, using at least two main points; *explains* the role of integrated pest/disease management, *describe* two environmental impacts that your methods of control may have and provide a comprehensive conclusion.
- 8 =** *Outlines* the methods for its control, *discuss* two points for and against the strategies undertaken, *calculate* the expenses involved, using at least two main points; *explains* the role of integrated pest/disease management, *describe* one environmental impact that your methods of control may have and provide a conclusion.
- 7 =** *Outlines* the methods for its control, *discuss* two points for and against the strategies undertaken, using two main points; *explains* the role of integrated pest/disease management, *describe* one environmental impact that your methods of control may have and provides a conclusion.
- 6 =** *Outlines* the methods for its control, *discuss* two points for or against the strategies undertaken, using one main point; *explains* the role of integrated pest/disease management or *describe* one environmental impact that your methods of control may have and provides a conclusion.
- 5 =** *Outlines* the methods for its control, *discuss* one point for or against the strategies undertaken, using one main point; *explains* the role of integrated pest/disease management and provides a conclusion.
- 4 =** *Discuss* one point for or against the strategies undertaken, *describes* one environmental impact that your methods of control may have and provides a conclusion.
- 3 =** *Outlines* the strategies undertaken, *describes* one environmental impact that your methods of control may have and provides a conclusion.
- 2 =** *Outlines* the strategies undertaken and provides a conclusion.
- 1 =** *Outlines* the strategies undertaken.

Your Mark and Teacher's Comment:

PART C

Writing a Bibliography

A bibliography is a list of references or sources that were used to complete a given task. The sources (books, journal articles, internet sites, pamphlets, interviews, telephone conversations, etc) **MUST be listed alphabetically by last name** (for the work of an individual) or organisation (for company group products)

- 4 =** Uses a wide ranges of sources, correctly follows the template as below and *lists* the sources in alphabetically order.
- 3 =** Uses a range of sources, follows the template as below and *lists* the sources in alphabetically order.
- 2 =** Follows the template as below and *lists* the sources in alphabetically order.
- 1 =** *Lists* the sources in any particular manner

Teacher's Comment:

For BOOKS, PAMPHLETS AND TEXTS

Author. (Year) Title of Article Journal Name. Volume: Page Numbers.

eg: Francis R. (1993) Agriculture and You 1.

Agriculturalist Publishing. Pp. 69-73

For JOURNAL (MAGAZINES AND PERIODICALS) ARTICLES:

Author. (Year) Title Publisher, State or Country

eg: Brotherton J and Mudie K. (2007) Heinemann Biology

Heinemann, Australia.

For INTERNET ARTICLES / SITES:

Author. Title Address(URL) (Date Written) (Date Accessed).

eg: Ashmay A. The Seven Wonders <http://www.ozenet.com> (2007)

[Accessed 29/3/09].

For PERSONAL INTERVIEWS / DISCUSSIONS:

Person. (Date) Position, Organisation.

eg: MacIntosh K. (13/3/09) Field Officer, NSW National Parks and Wildlife Services

Your Overall Mark and Teacher's Comment: **/72** **%**

Date:



GRIFFITH HIGH SCHOOL
PRELIMINARY COURSE ASSESSMENT TASK
Year 11 Term 3 2009
Agriculture
Assessment Weighting: 15%

ISSUE DATE: Tuesday 11th August, 2009 (Week 3)
DUE DATE: Before 9am – Tuesday 8th September (Week 7)
TEACHER: Mr Chirgwin

OUTCOMES TO BE ASSESSED

Outcome Number	Outcome Description								
• P2.2	Describes the biological and physical resources, and, applies the processes that cause changes in animal production systems.								
• P3.1	Describes the role of decision-making in management and marketing of agricultural products in response to consumer and market requirements.								
• P5.1	Identifies the role of associated technologies and technological innovation in producing and marketing agricultural products.								
Course Components and Weightings Selected <table> <tr> <td>Component</td><td>Weighting</td></tr> <tr> <td>❖ Animal Digestion, Production Development and Grazing Management</td><td>15%</td></tr> <tr> <td>Total Weighting</td><td>15%</td></tr> <tr> <td>Total Marks</td><td>56</td></tr> </table>		Component	Weighting	❖ Animal Digestion, Production Development and Grazing Management	15%	Total Weighting	15%	Total Marks	56
Component	Weighting								
❖ Animal Digestion, Production Development and Grazing Management	15%								
Total Weighting	15%								
Total Marks	56								
Assessment Task Task - There are four parts to this assessment task (see the following pages)									

Part A

Animal Digestion (Ruminant)

<u>Task</u>	<u>Checklist</u>
• Create a flowchart diagram of the digestive system of a ruminant animal (sheep or cattle).	
• Describe the structure & function of each digestive part.	

Part B

Animal Product Development

<u>Cattle</u>	<u>Sheep</u>	<u>Chickens</u>
Hereford	White Suffolk	Rhode Island Red
Brahman	Merino	Australorp
Fresian	Dorper	Light Sussex
Santa Gertrudis	Border Leicester	Leghorn

<u>Task</u>	<u>Checklist</u>
• Using only an illustrated product flowchart (i.e. Paddock to Plate), explain the process of product development for three of your chosen breeds (one from each category) from the above table.	
• Provide a labelled animal timeline (Birth → Death) with animal meta-language (i.e. lamb, hogget, day old, pullet, weaner etc) for one animal above.	

Part C

Animal Grazing

<u>Task</u>	<u>Checklist</u>
• Explain the various methods which an animal can graze an area of land (i.e. set stocking, rotational grazing, cell grazing and others)	
• Sketch a labelled diagram for two of the methods above.	

Part D

Referencing

<u>Task</u>	<u>Checklist</u>
• Correctly provides an alphabetical list of references	

Animal Production Assessment

Marking Criteria

Part A

Animal Digestion (Ruminant)

- a) **Create a flowchart diagram of the digestive system of a ruminant animal (sheep or cattle).**

<u>MARKING GUIDELINES</u>		
<u>CRITERIA</u>	<u>MARKS</u>	<u>YOUR MARK</u>
Creates a fully labelled flowchart diagram which is clear and easy to follow for a ruminant digestive system.	6	
Creates a labelled flowchart diagram which is clear for a ruminant digestive system.	4-5	
Creates a labelled flowchart diagram for a ruminant digestive system.	2-3	
Creates a diagram for a digestive system.	0-1	

Teacher's Comment:

b) **Describe the structure & function of each digestive part.**

MARKING GUIDELINES		
CRITERIA	MARKS	YOUR MARK
- Identifies at least six digestive parts of the ruminant digestive system. - Describes their features and characteristics within the ruminant system.	12	
- Identifies at least five digestive parts of the ruminant digestive system. - Describes their features and characteristics within the ruminant system.	9-11	
- Identifies at least four digestive parts of the ruminant digestive system. - Describes their features and characteristics within the ruminant system.	7-9	
- Identifies at least three digestive parts of the ruminant digestive system. - Describes their features and characteristics within the ruminant system.	5-7	
- Identifies at least two digestive parts of the ruminant digestive system. - Describes their features and characteristics within the ruminant system.	2-4	
Identifies at least two digestive parts of the ruminant digestive system.	0-1	

Teacher's Comment:

Part B

Animal Product Development

- a) Using only an illustrated product flowchart (i.e. Paddock to Plate), **explain** the process of product development for **three** of your chosen breeds (one from each category).

MARKING GUIDELINES		
CRITERIA	MARKS	YOUR MARK
-Provides a clear illustration of product development for all three chosen breeds by: • Including at least six steps of product development • Including a variety of steps in the process – Alive animal, transport, packaging, labelling etc • Labelling each step in the process • Identifies two technological innovations in producing three products • Clearly stating with a heading the chosen breed • Having ruled lines and boxes for each product • Providing arrows for flow of each product • Clearly states the learning undertaken in this process	15	
-Provides a clear illustration of product development for all three chosen breeds by: • Including at least five steps of product development • Including a variety of steps in the process – Alive animal, transport, packaging, labelling etc • Labelling each step in the process • Identifies one technological innovation in producing all three products • Clearly stating with a heading the chosen breed • Having ruled lines and boxes for each product • Providing arrows for flow of each product	12-14	
-Provides a clear illustration of product development for all three chosen breeds by: • Including at least four steps of product development • Labelling each step in the process • Clearly stating with a heading the chosen breed • Having ruled lines and boxes for each product	8-11	
-Provides a clear illustration of product development for two chosen breeds by: • Including three steps of product development • Labelling each step in the process • Clearly stating with a heading the chosen breed • Having ruled lines and boxes for each product	4-7	
-Provides a clear illustration of product development for one chosen breed by: • Including two steps of product development • Labelling each step in the process	0-3	

Teacher's Comment:

- b) Provide a **labelled** animal timeline (Birth → Death) with animal meta-language (i.e. lamb, hogget, day old, pullet, weaner etc) for **one** animal.

MARKING GUIDELINES		
CRITERIA	MARKS	YOUR MARK
• Creates a fully labelled diagram which is clear and easy to follow for a selected animal timeline	5	
• Creates a labelled diagram which is clear and easy to follow for a selected animal timeline	3-4	
• Creates a labelled diagram for a selected animal timeline	1-2	

Teacher's Comment:

Part C

Animal Grazing

- a) **Explain** the various methods which an animal can graze an area of land (i.e. set stocking, rotational grazing, cell grazing and others)

MARKING GUIDELINES		
CRITERIA	MARKS	YOUR MARK
- Identifies four methods in which an animal can graze land. - Outlines all four methods of grazing. - Recognises the importance of all four methods in an animal management system by: -Providing a written example from a landholder interview or newspaper clipping or internet resource. - Provides a comprehensive conclusion	8	
- Identifies four methods in which an animal can graze land. - Outlines all four methods of grazing. - Recognises the importance of all four methods in an animal management system by: -Providing a written example from a landholder interview or newspaper clipping or internet resource.	7	
- Identifies four methods in which an animal can graze land. - Outlines all four methods of grazing. - Provides a conclusion	6	
- Identifies three methods in which an animal can graze land. - Outlines all three methods of grazing. - Provides a conclusion	5	
- Identifies two methods in which an animal can graze land. - Outlines two methods of grazing.	4	
Outlines two methods of grazing.	2-3	
Identifies two methods in which an animal can graze land	1	

Teacher's Comment:

- b) **Sketch** a labelled diagram for two of the methods an animal can graze in an area of land.

MARKING GUIDELINES		
CRITERIA	MARKS	YOUR MARK
-Provides a clear illustration for two methods in which an animal can graze land by: - Clearly stating with a heading for both methods - Having ruled lines - Providing a key - Providing arrows for the flow of the animals in the system - Clearly states the learning undertaken in this process	6	
-Provides a clear illustration for two methods in which an animal can graze land by: - Clearly stating with a heading for both methods - Having ruled lines - Providing a key - Clearly states the learning undertaken in this process	4-5	
-Provides a clear illustration for one method in which an animal can graze land by: - Clearly stating with a heading for the method - Having ruled lines	2-3	
-Provides a clear illustration for one method in which an animal can graze land by: Clearly stating with a heading for the methods	1	

Teacher's Comment:

PART D

Referencing

Writing a Bibliography

A bibliography is a list of references or sources that were used to complete a given task.

The sources (books, journal articles, internet sites, pamphlets, interviews, telephone conversations, etc) **MUST be listed alphabetically by last name** (for the work of an individual) or organisation (for company group products)

For BOOKS, PAMPHLETS AND TEXTS

Author. (Year) Title of Article Journal Name. Volume: Page Numbers.

eg: Francis R. (1993) Agriculture and You 1.

Agriculturalist Publishing. Pp. 69-73

For JOURNAL (MAGAZINES AND PERIODICALS) ARTICLES:

Author. (Year) Title Publisher, State or Country

eg: Brotherton J and Mudie K. (2007) Heinemann Biology
Heinemann, Australia.

For INTERNET ARTICLES / SITES: (Print the page off and use the address at the bottom of the page)

Author. Title Address (URL) (Date Written) (Date Accessed).

eg: Ashmay A. The Seven Wonders <http://www.ozenet.com> (2007)
[Accessed 29/3/09].

For PERSONAL INTERVIEWS / DISCUSSIONS:

Person. (Date) Position, Organisation.

eg: MacIntosh K. (13/3/09) Field Officer, NSW National Parks and Wildlife Services

- a) **Correctly** provides an alphabetical list of references

<u>MARKING GUIDELINES</u>		
<u>CRITERIA</u>	<u>MARKS</u>	<u>YOUR MARK</u>
• Uses a wide range of sources, correctly follows the template.	4	
• Lists the sources in alphabetically order.		
• Uses a range of sources, follows the template	3	
• Lists the sources in a particular order.		
• Follows the template	2	
• Lists the sources in any particular manner	1	

Your Mark and Teacher's Comment:

[illegible]

AY Team

The ASC Youth Group of NSW

Securing the future of our Rural Shows



What the Agricultural Youth (AY) Team does:

Participates in local shows by:

- Stewarding
- Organise events and novelty activities
- Provide assistance for the benefit of the show

Promoting youth involvement in shows



- Junior Judging -



- Annual Show* All Rural Ball

- Encourage youth exchange programs
- Social Weekend Getaways (held twice a year in various locations)

Networking - held twice a year in various locations around NSW

- Brainstorming
- Sharing ideas, experiences and brainstorming
- Assisting with show-day activities and having fun.

Exchange Program

- Youth teams networking with each other
- Youth members exchanging with shows that may not have a youth group
- Learn about what is happening in your region within the show movement
- Support the Show movement statewide

Aims

1. Encourage networking assistance and support to young people in rural NSW in their involvement in Agricultural Shows
2. Develop sustainable methods to secure a strong member base and financial security of the organisation
3. Support and cooperate with like organisations including ASC RAS and youth organisation throughout Australia and New Zealand
4. Secure the future of Agricultural Shows in rural and regional NSW
5. Promote the activities of the group and their members to the wider community to encourage growth in support.

The AY Team likes to maintain an 'easey' approach:

Encourage: *Encourage youth to support the future of rural and regional agricultural shows*

Achieve: *Sustainability of the organisation and growth in membership base*

Support: *Other like organisations including ASC and RAS in developing youth based activity*

Enrich: *Allow members to learn and enrich their personal development while supporting their community*

Youth: *Driven by the youth of our Agricultural Shows*

Where we are going or The Future direction of the organisation

- Established in 2001 with 15 members, we now have 200+ members and growing!
- Expanding interstate and internationally into New Zealand
- Working towards having AY team members in all 192 show society's across NSW
- Continue to promote the involvement of young people in rural shows and agriculture in a fun and constructive manner.

How can you and/or your students become involved in the NSW AY Team?

**Contact Carl Chirgwin on 0427 455 389
or
carl.chirgwin1@det.nsw.edu.au**



Finally in the Bin...

Keep Ploughing Ahead