Winter 2003 Edition Number 22

BAAT

Bulletin of the NSW Association of Agriculture Teachers

Bulletin of the New South Wales Association of Agriculture Teachers inc

WINTER EDITION 2003

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If you can arrange any sponsorship for BAAT please contact Graeme Harris

N.S.W. Association of Agriculture Teachers Inc

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PRESIDENTS REPORT

Welcome back for 2003. It was with a great deal of trepidation (and pride) that I accepted the nomination for the position of President of the Association for 2003-4 at the Biennial Conference held at Tocal during January.

Perhaps I should tell you a little about myself before I outline some of the challenges that we all face in the future.

My name is Graeme Harris, I am 47 years old, am married to Sue and have two teenage daughters.

I am a teacher at Farrer Memorial Agricultural High School and teach both Agriculture and Primary Industries. Last year I was a marker for the HSC Agriculture exam in the country marking centre at Tamworth.

I have been a contributor to the Independent Trials papers for trail HSC Agriculture, Primary Industries, Prelim Agriculture and have reviewed the Year 10 Agriculture paper.

Whilst Bob Guest was farm manager at Farrer I held the acting HT position for 6 years and am currently the VET coordinator for the school. I have also held a number of positions on District committees (CSIS and OHS&R).

Well, enough about myself , what does the future hold for Agriculture Teachers?

Some issues include :

- A new syllabus for stage 4/5 Agriculture to be called Agricultural Technology.
- New Agriculture components of the stage 4 TAS syllabus
- New Primary Industries syllabus and electives
- A new Tractors contract for state schools
- Perhaps the greatest challenge is the recognition of teacher competency, currency and qualifications. This is all coming under the umbrella of the formation of an "Institute of Teachers". Patrick McCann has been heavily involved in the committee of the Professional Teachers Council of which the AAT is a member assisting in the development of guidelines toward the establishment of the Institute.

What are the challenges for the Association?

- To maintain membership and make the association a worthwhile organization for its members.

- To increase the speed with which important issues can be raised with members
- To continue to have input into the development of Agricultural Education in NSW schools.
- To assist the new entrants to the profession to gain the knowledge needed to deal with the day to day issues they face in the classroom
- To reduce the costs of running the organization

How can the Association do this?

- The access of teachers and students to the internet is increasing daily and this will provide an avenue to distribute information rapidly.
- I have established a website www.nswaat.org.au which aims to address this need
- The establishment of an email list so I can communicate with all members as issues arise.
- Last year the cost of BAAT was several thousand dollars. With new technologies this can be distributed in electronic form if desired with substantial cost savings.
- The establishment of a discussion forum on the website which allows people to interact with others in the profession.
- As the Board of Studies has been providing a huge of amount of information in the form of the Standards Packages, this means that the traditional first issue of BAAT with sample answers from the previous years HSC is no longer necessary. Consequently the executive are going to publish only Two issues of BAAT each year however there will be far more information on the website. Let me know your opinion.

Some thanks:

- An enormous vote of thanks must go to Patrick McCann for his energy and commitment to the Association for the past 4 years. His drive and effort resulted in many wins for the Association and Agriculture teachers against strong opposition from certain sectors of the educational bureaucracy.
- Thanks must also go to the rest of the executive for their efforts over the last two years.
- The incoming executive of Stuart Hemmings and Lisa O'Brien , with the assistance of the remainder of the Agriculture Faculty at Farrer for BAAT
- John Lee, Tony Barnett and team for accepting the challenge of organizing the next conference.
- North Coast teachers for planning for the 2006 National Conference.
- Ivan Gant, Bill Hazzard and his team for their excellent conference at Tocal.

Congratulations:

J A Sutherland Award was presented to Trevor Sewell for services to the Association
Life Membership was granted to John Lee for his outstanding contribution to the association.
Ivan Gant and Graeme Harris for the inaugural Presidents Awards for service to the association.

Graeme Harris

Biennial Conference Report 2003

The theme for the conference was "Hands on Agriculture"

A most successful conference was held at CB Alexander Agricultural College, Tocal. The venue was excellent with great food, plenty of laughter and quite a bit of serious work. Most people stayed at the college.

Cameron Archer (Principal) officially opened the conference, and then the delegates split into two sessions : "Succeeding at the HSC, Stage 6 Agriculture" or "Succeeding at the HSC, Stage 6 Primary Industries VET". Both focused on markers observations, understanding the syllabus and Answering Questions.

After a hasty lunch a coach tour to the upper Hunter to investigate Value Adding to agricultural production took place. These involved Wine Production (Gary MacLean, Rothbury), Fordwich Olives, and the fine cheese Factory at Pokolbin. Sampling of the fruits of their labour took place by many participants who ensured that they gained the maximum benefit from their study of value adding.

Dinner was then taken at Harrigans Irish Pub where spirited discussion regarding the relative merits of different value added produce took place. The coach then returned the crew to Tocal.

Day two had half day practical skill development in Soil Testing, courtesy of Hayes Farm Supplies Coolah, A waratah Fencing workshop by Neville Price sponsored by Waratah. A full day Course in Worm Testing and Parasite control was also conducted.

The conference dinner was held in the Tocal Dining room after pre dinner drinks and Bruce Tyrrel gave a most enjoyable speech about the wine and cattle industries. We were also able to sample a range of his fine wines, some of us sampled a touch too many perhaps.

Patrick McCann presented the Presidents Award and the J A Sutherland Award. Unfortunately Trevor Sewell could not be present to have the award formally presented to him.

Wednesday morning saw the AGM where John Lee was made a life member. The constitution was amended (see late in BAAT) and subs were set at $120 per 2 years.

Dr Wayne Backhouse then challenged all our views on animal nutrition with a fine presentation. This was then available on CD.

Thanks must go to Ivan Gant and the whole team for their tireless efforts in staging a great conference.

New England has agreed to stage the next conference. Please take the time to complete the questionnaire that follows and return it to John Lee.

A Meeting of members held in Armidale endorsed planning for the conference to be moved to March 2004, so that planning could take place to assist with the introduction of the new Junior Ag and VET Syllabii.

NEXT NSWAAT BIENNIAL CONFERENCE QUESTIONNAIRE

As the organizers of the next biennial conference, 2005, we would like some input from you, the potential customer. We would like you to respond to the following so that we can gauge what the majority of participants require.

TIME OF CONFERENCE

I would prefer the next conference to

- ☐ run in January 2005
- ☐ run in school time
- ☐ term 1 2004
- ☐ term 3 2004
- ☐ other

CONTENT OF CONFERENCE

We have potential access to a variety of expertise in many areas. As a result we may be able to organize a conference with a particular theme.

I would like

-a general theme relating to -

- ☐ beef
- ☐ sheep
- ☐ aquaculture
- ☐ new technologies
- ☐ other

- no particular theme ☐

*Do we need to include tractor operations/chemical training for those who have not had Primary Industries training? YES / NO

*Do you have any other comments as to what should be included in the conference program?

Could you return this with your response to - John Lee
Glen Innes High School,
Edward St., Glen Innes 2370
as soon as possible, and **no later than the end of June 2003**. We would like to start planning for the conference early Term 3 and we would like to meet the needs of as many as possible so please send us your response as soon as possible.

John Lee, On behalf of the organizing committee

NAAE 2004 BIENNIAL CONFERENCE

11th –15 th January 2004 *(note revised date)*

Kangaroo Island, South Australia

"Sustaining Agriculture through Innovation and Diversification"

Topics include;

Water Quality (bring a sample from your local supply)

Value Adding and Product Branding

Ecotourism

Daily Tours to sites of Agricultural and Tourist Interest

Venue: Acacia Lodge, Kingscote.

Accommodation available at the venue or go to

www.tourkangarooisland.com.au

Expression of Interest

Name:

Institution:

Contact address:

email: mjurgs@meningieas.sa.edu.au

post to: Mal Jurgs

c/o Meningie Area School,

1 North Tce

MENINGIE SA 5264

New Sheep and Wool Course:

As you may be aware the Stage 5 Sheep and Wool course is to be abolished by the BOS in 2005. The association, in a meeting with the then Minister, Mr John Watkins, and representatives of the BOS agreed that an alternative Board Endorsed Course should be developed as a replacement.
Darren Smith at Farrer developed a BEC proposal that has been accepted by the BOS. An electronic copy of the course is available from the AAT and schools can piggy back on the course by submitting an amended application. If you are interested in finding out more please contact Darren Smith at Farrer on 0267648660.

COURSE STRUCTURE OVERVIEW

Explain how the modules are combined to give the various levels of credential. Modules must be between 15 and 30 hours in length.
Select '(not sought)' where you are not seeking endorsement 200 hours. Total hours must total at least 100 or 200 hours. A 100 hour endorsement is automatically granted to 200 hour endorsements.

Hours of Endorsement	Number of Core hours	Number of Elective hours	Total
100	00	00	00
200	200	00	200

List the titles and hours of modules according to whether they are core (mandatory) or elective

CORE modules	Hours	ELECTIVE modules	Hour
1. Sheep Production	15	1.	
2. Sheep Genetics and Reproduction	30	2.	
3. Sheep Nutrition	20	3.	
4. Sheep Health and Disease	15	4.	
5. Sheep and Wool Presentation	30	5.	
6. Wool Biology and Testing	20	6.	
7. Wool Harvesting	20	7.	
8. Wool marketing and Processing	20	8.	
9. Market Investigation	30	9.	

Knowledge and Skills Objectives	Knowledge and Skills Outcomes
Students will develop	A student:
1. knowledge and understanding of the various sheep enterprises to meet market specifications	1.1 Identifies characteristics of sheep and wool to meet market specifications
	1.2 Assesses the value of various breeds / strains to meet market specifications
	1.3 Evaluates the various types of sheep enterprises available to meet market specifications
2. knowledge and skills to manipulate the production cycle to meet market specifications	2.1 Applies genetic principles to select and manage a ewe breeding flock
	2.2 Develops balanced feeding and grazing programs systems to meet market specifications
	2.3 Outlines methods of managing the health requirements of a flock of sheep
3. knowledge and skills to select, prepare, present and judge sheep and or wool for competitions	3.1 Evaluates sheep and or wool to meet competition requirements
	3.2 Applies a program for the preparing sheep and wool
	3.3 Evaluates sheep and wool for judging purposes
4. Knowledge, understanding and skills in wool growth, testing, harvesting, marketing and processing.	4.1 Outlines an understanding of wool biology and how wool is objectively measured
	4.2 Explains the process involved in the harvesting of wool
	4.3 Researches the different methods of marketing and steps involved in wool processing
Values and Attitudes Objectives	**Values and Attitudes Outcomes**
5. An appreciation of the importance of working safely and collaboratively with others to achieve individual and collective goals	5.1 Recognises aspects of a safe environment
	5.2 Appreciates the importance of working collaboratively to achieve selected goals
	5.3 Demonstrates appropriate ethical and caring attitude towards sheep

New Agricultural Maths Course :This course has been approved as as a School Developed Board Endorsed Course. It may be of interest to some schools, For further information contact Gus Comi, H/T at Farrer MAHS, Calala Lane, Tamworth nsw 2340, ph 0267648600

APPLIED MATHEMATICS

2 units in 1 year 120 hours in Preliminary or HSC Year

RATIONALE AND AIM

Why do students at your school need this course? (The rationale)

This course is designed to meet the needs of those students who have participated in the Preliminary General Mathematics course and are working towards the achievement of some of the Preliminary outcomes. At the completion of the Preliminary Course these students either terminate their Mathematics study, or continue struggling with the HSC course which has little or no relevance to their post school vocation. The provision of the Applied Mathematics course will be a welcome alternative to these students.

At Farrer Memorial Agricultural High School approximately 30% of Year 10 Mathematics students are at the lower Intermediate/Standard level. This is coupled with the fact that 50% of our students come from rural/isolated backgrounds. To cater for our clientele the school focuses on Vocational Education and as a result our retention rate is high and is expected to continue at this rate.

The students apply for employment and apprenticeships in the various industries available in Tamworth and the North-West region including agricultural, industrial, building & constuction, hospitality and transport & retail. On application they are expected to possess a reasonable level of work related contextual mathematical skills, including some experience with computers in the areas of spreadsheets and the internet.

The course aims to provide further opportunities for students to solve problems, improve technology skills, calculate both mentally and in written form, estimate and measure, interpret and communicate information in a variety of forms by involving them in a range of vocational and societal mathematical experiences.

The course consolidates and builds upon the knowledge, skills and understandings of the Stage 6 General Mathematics Preliminary Course.

CORE modules		Hours
1.	Technology Skills for Maths	20
2.	Applied Finance	25
3.	Societal Mathematics	15
4.	Workplace Mathematics	30

Title: Technology Skills for Mathematics **Hours: 20** **Module 1**

Description

Briefly describe the focus of the learning that students will experience in this module

- TO BE INTEGRATED INTO TEACHING OF ALL MODULES
- Application and development of skills from the General Mathematics preliminary year
- Use of the Internet
- Further use of spreadsheets
- What if' analysis
- Auto-recalculation
- Graphing & Drawing

Title: Applied Finance **Hours: 25** **Module 2**

Description

Briefly describe the focus of the learning that students will experience in this module

- MANAGING MONEY

sources of finance, tables of repayments, different types of loans, credit cards investment options/strategies, superannuation, online banking/bill-paying.

• INSURANCE
policy checklist, life, health, housing — contents and building, car.
*HOME PURCHASE
associated costs/requirements, spreadsheet "what~if" analysis , buying versus renting comparison.

Title: Societal Mathematics **Hours: 15** **Module 3**

Description

Briefly describe the focus of the learning that students will experience in this module

• GEOMETRYOF THE EARTH
Grid on the Earth's Surface, Time
• ENVIRONMENT
Pollution of land, air and water, Recycling — land use, weather, climate
• PEOPLE
Time and travel, demography, elections, media, gambling

Title: Workplace mathematics **Hours: 30** **Module 4**

Description

Briefly describe the focus of the learning that students will experience in this module

• HOSPITALITY:
Skills related to: commercial cooking, book keeping, tourism.
•BUILDING:
Skills related to plumbing, carpentry and joinery, bricklaying and tiling.
• PRIMARY INUSTRY
Skills related to agriculture, animal husbandry and transport.
• MECHANICAL/ELECTRICAL:
Skills related to: electrical, automotive, fitting and machining, metal fabrication, refrigeration and cement manufacture.

Title: Rural Mathematics **Hours: 30** **Module 5**

Description

Briefly describe the focus of the learning that students will experience in this module

§ Using identified local primary industries(Blaida Chicken Farms, Farrer demonstration farm), students can consolidate and expand upon areas of Finance, Measurement, Data Analysis and Algebraic Applications from the Preliminary General Course.
§ Convert units and calculate percentages, capacities and application rates.
§ Collect data directly from local Primary Industries as well as web-sites of other Industries world-wide.
-graph data
-analyse data, including measures of central tendency and dispersion.
-identify trends.
-make judgements about the data.
-identify correlation, cause and effect relationship.
-make calculations based on the data

A man is driving down a country road, when he spots a farmer standing in the middle of a huge field of grass. He pulls the car over to the side of the road and notices that the farmer is just standing there, doing nothing, looking at nothing. The man gets out of the car, walks all the way out to the farmer and asks him, "Ah excuse me mister, but what are you doing?" The farmer replies, "I'm trying to win a Nobel Prize." "How?" asks the man, puzzled. "Well, I heard they give the Nobel Prize . . . to people who are out standing in their field."

Life Members:

For contribution to the NSW Association of Agriculture Teachers

- Norm Robinson
- Norm Thomas
- Don Bartholomew
- John Lee (2003)

The J. A. Sutherland Award

For excellence / contribution to Agricultural Education in NSW Secondary schools

The most prestigious award that can be awarded to any teacher of Agriculture in NSW is the J. A. Sutherland Award. The J.A Sutherland award is named after Allan Sutherland.

The last four recipients of the J. A Sutherland Award are:-

1997	Mr. Peter Jones
1999	Dr Rod Francis.
2001	Jenni Wilkins
2003	Trevor Sewell (CONGRATULATIONS)

A man was helping one of his cows give birth, when he noticed his 4-year-old son standing wide-eyed at the fence, soaking in the whole event. The man thought, "Great...he's 4 and I'm gonna have to start explaining the birds and bees. No need to jump the gun - I'll just let him ask, and I'll answer."

After everything was over, the man walked over to his son and said. "Well son, do you have any questions?"

"Just one," gasped the still wide-eyed lad. "How fast was that calf going when he hit that cow?"

The Proposed DET tractor contract:

At the conference NSW DET Properties reported on the factors they had considered in the development of the New Tractors Contract for DET schools. A report on the presentation follows . As this is composed from personal notes it may not represent final DET policy.

It was highlighted that PURCHASES BY SCHOOLS OF TRACTORS FROM THE CONTRACT IS MANDATORY.

Four 6 monthly services are to be included and training by the successful tenderer is to be provided.

These are all in place as the DET undertook a risk assessment of tractor use in schools and determined that under the OHS Regulation 2001 tractors must be fitted with the following features

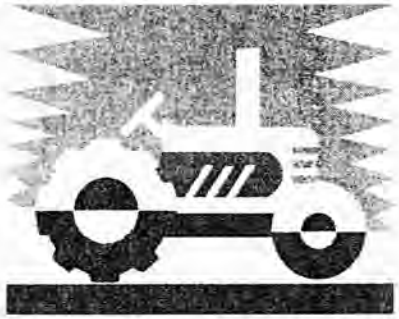
be 16-20 kw or 28-32 kw	*Diesel (CSIS rule)*	*4 WD assist*
Manual	*Power Steer*	*Hand Throttle*
F<n>R neutral lock	*3 forward gears*	*Safe work platform*
Retractable seat belt	*ROPS*	*Adjustable seat*
Hour meter	*Keyed ignition*	*Amber flashing light*
Sun canopy	*Reverse alarm*	*Rear pto-dual speed*
Cordless remote control engine immobilizer	*Mushroom emergency stop button on wheel arch*	*RHS access prevention bar*
Printed & electronic manual	*Slasher*	*Rotary Hoe*

A First aid kit will be needed.

Disposal of old tractors can occur with faults as long as written advice not to use until faults have been rectified. OHSR Reg 2001

Tractors were rated using the STARS Rating system (see Vic workcover web site)

More information is available from NSW DET Properties



The New Website:

This has been taken up by members very well. Only those whose email addresses have so far been advised that it exists however there has been very good traffic through the site. (3 months data follows:

NSWAAT WEBSITE
STATISTICS REPORT 2003 May 2003

General Summary

Total Requests	13370
Total Page Requests	1972
Total Bytes Served	62186070
Distinct Hosts Served	301
Distinct Files Served	295

Monthly Summary

Feb-03	2427	18.15%	311	15.77%
Mar-03	4937	36.93%	655	33.22%
Apr-03	2415	18.06%	439	22.26%
May-03	3591	26.86%	567	28.75%

Daily Summary

Sun	727	5.44%	121	6.14%
Mon	2078	15.54%	282	14.30%
Tue	2535	18.96%	413	20.94%
Wed	2714	20.30%	380	19.27%
Thu	2925	21.88%	438	22.21%
Fri	1391	10.40%	216	10.95%
Sat	1000	7.48%	122	6.19%

Looks like we don't like to do school work on Saturday and Sunday!!

www.nswaat.org.au

Building Online Learning Resources

A two day course running in centres throughout NSW in 2003

Do your students spend most of their time searching the Internet and not doing their assignment??

Use a **Hotlist** and eliminate the problem!

Do you want your students to only use credible Internet sites that actually fit the Topic?

Why not use a **Knowledge Hunt**?

Do you want to get your students motivated and immersed in their Topic?

Use a **Subject Sampler** and see the difference!

Do you want to be able to publish Assignments to the Internet with no Web publishing skills, just a click and its published??

If you answered yes to these questions then this course and the Web and Flow site are for you. This workshop is based on the Web 'N' Flow process from Tom March's website http://www.ozline.com

Further information can be found about this course at the ASLA NSW site http://www.asla.nsw.edu.au



PRESENTED BY ASLA NSW AND SUPPORTED BY THE PROFESSIONAL TEACHERS' COUNCIL NSW

HTTP://HSC.CSU.EDU.AU/PTA/INDEX.HTM

where is your closest workshop?

Broken Hill	2nd – 3rd May
Wollongong	9th – 10th May
Newcastle	16th – 17th May
Parramatta	23rd – 24th May
Wagga Wagga	30th – 31st May
Campbelltown	13th – 14th June
Moree	20th – 21st June
Goulburn	27th – 28th June
Queanbeyan	25th – 26th July
Bathurst	1st – 2nd August
Tamworth	8th – 9th August
Bega	15th – 16th August
Albury	22nd – 23rd August
Nowra	29th – 30th August
Dubbo	5th – 6th September
Port Macquarie	12th –13th September
East Sydney	19th –20th September
Dee Why	19th –20th September

Please complete the registration form and send with payment to ASLA NSW at PO Box 1336, Parramatta, NSW 2124. Registrations close for each workshop 2 weeks prior.

Costs

This workshop includes participation for 2 days, morning tea and lunch as well as the ability to continue to use the workshop resources in your classroom.

Member & DET employee	$150
Non Member & DET	$185
Member & Non Govt. employee	$170
Non Member & Non Govt.	$210

Who is the course for?

This workshop is for classroom teachers, teacher librarians and those supporting teachers in classroom practice.

Membership of a member association of the Professional Teachers Council of NSW enables you to register at the member rate.

TAX INVOICE

Town for Workshop (Include town and dates):

Membership Number

Professional Association:

Name

School

Address

Phone: Fax:

Email:

❑ Cheque payable to ASLA NSW Inc. ABN 19 653 510 071 for $ _____ incl. GST **OR**

❑ Please debit my Mastercard Bankcard Visa for $ _____ incl. GST

Card Number

_ _ _ _ ! _ _ _ _ ! _ _ _ _ ! _ _ _ _

Expiry Date: _ _ ! _ _

Name on Card: _____

Signature: _____

ASLA NSW reserves the right to cancel a workshop where minimum numbers are not achieved

****

Hydroponics Solutions:

Solution A Macro nutrients mix

Potassium Nitrate 25g
Calcium Nitrate 25g
Starter 12 (MAP) 2.5g
Superphosphate 7.5g
Magnesium Sulfate (Epsom Salts) 10g

This is a tank mix, for 50 Litres of water,place superphosphate into a muslin bag to prevent sediment build up

Solution B Trace element mix

Makes 5 litre of stock solution.
Boric Acid 100g
Magnesium Sulfate 50g
Zinc Sulfate 10g
Copper Sulfate 4g
Add 5 ml per 50 litres of solution ***A***

Solution C- Iron Mixture

Use Iron Chelate (Used on azaleas)
Iron Chelate 25g in 1 litre of Water to make stock solution.
Use at rate of 50ml in 50 litres of solution A

TEST SOLUTION FOR pH range pf 5.5 to 6.5 and Electrical Conductivity of 2 to 3 dS/m (same as mS cm)

Whats happening in the USA?: Part of their newsletter follows. Check out the website http://www.agintheclassroom.org

A Biannual Newsletter on Agriculture in the Classroom May 2002

Seeds for Success

Hooray for Farming! Books Available at Special Price

Crabtree Publishing Company is offering a 50% discount through American Farm Bureau for any of the following four books in the *Hooray for Farming!* series:

- *Hooray for Beekeeping!*
- *Hooray for Dairy Farming!*
- *Hooray for Orchards!*
- *Hooray for Sheep Farming!*

Through the beautiful illustrations and photographs in these books, author Bobbie Kalman helps children understand the wide variety of farms, the people who operate them, and the types of farming techniques and equipment they use.

The reading level for the *Hooray for Farming!* books are Grades 3-4 and the interest level is Grades

K-8. The books may be purchased as a set or individually, in either hard cover or paperback editions.

To expedite orders, the American Farm Bureau Foundation for Agriculture will be sending copies of a specially prepared flyer from the publisher to state Farm Bureau AITC coordinators. Please distribute flyers to your county Farm Bureau leaders, who may want to plan new educational programs around these books, or donate a set of books to local schools.

IN THIS ISSUE

1 *Hooray for Farming!* Books Available at Special Price

1 Ag Mag Launched as First State Resource Offered Nationwide

2 State AITC Program News

Seeds for Success is published twice a year by the American Farm Bureau Foundation for Agriculture to inform state Farm Bureaus about Agriculture in the Classroom programs conducted nationwide. For more information contact: Laurie Wink at (847) 685-8664.

Educational Resources Initiative:

Ag Mag Launched as First State Resource Offered Nationwide

Ag Mag, an agricultural magazine for kids, is the first educational resource to be offered nationwide through a partnership between the American Farm Bureau Foundation for Agriculture and state Farm Bureau Agriculture in the Classroom (AITC) programs.

Thanks to the creativity and generosity of the Illinois AITC program, a generic version of the *Pizza Ag Mag* was developed and distributed in March through 16 state AITC programs. The initial press run of 40,000 issues was sold by April and will be reprinted to meet future orders.

Two new theme issues - the *Dainj Ag Mag* and *Career Ag Mag* - will be sent to state and county offices in mid-May, in time for use with June Dairy Day programs, summer teachers

institutes and state fair programs. For a cost of $5 per package of 30 Ag Mags –about 16 cents each state and county AITC programs can reach individual students with a unique, useful product. To order, contact Mary Stanton at 847-685-8663 or marys@fb.org.

According to Laurie Wink, director of agricultural education for the Foundation, the Educational Resources Initiative was created to allow all state programs to benefit from existing educational resources, rather than having to create everything from scratch, which is expensive and time-consuming.

Eight state Farm Bureau AITC coordinators are serving as reviewers to evaluate and recommend various state products for national distribution. Ideas for future products may be submitted to any of the following members of the review team:

Charles Curtis, Tennessee
Kevin Daugherty, Illinois
Tad Duncan, Texas
Jennifer Hopper, New Mexico
Bernie Kayhan, Connecticut
Bob Leege, Wisconsin
Diane Olson, Missouri and
Judy Roush, Ohio.
Or contact Laurie Wink, AFBFA at (874)685-8664.
State AITC Program Summaries

Following are state reports on Agriculture in the Classroom programs. For more information, contact persons are identified at the end of each report.

ALABAMA

Earth Day: Alabama Farm Bureau has been busy with a major push for Earth Day in the biotechnology area. To date over 4,000 "Look Closer at Biotechnolgy "coloring books and crayons have been distributed to 3-4 graders in 11 counties.

Resource **Barns:** We've released the blueprints for the AITC Resource Barns. Four counties are working through Vo-Ag classes to build and make them available to elementary schools for K-6 grades.

Farm Tour: On April 23 we hosted a Farm Tour for Collinsville, AL students. We worked with the FFA students and local farmers and businesses to promote agriculture education.

Ag Forum: We will host the fourth annual event in July, dealing with Alternative Decisions: Food, Fiber and Fuel. The event will be held at the TVA Facilities in Muscle Shoals. ***Contact: Leonard Slade*** (mailto:leonards@hiwaay.net)

CALIFORNIA

2001 **Annual** Report: The California Foundation for Agriculture in the Classroom's 2001 Annual Report is now available. The 25-page report is a new product this year. The report provides a snapshot of the Foundation's activities, recognizes donors, and includes audited financial statements. Call 916-561-5625 for a free copy.

Imagine this... writing contest: Writing is a basic skill all students need to master. The Foundation provides a venue for a writing exercise with a reel punch— a writing contest in which the six top stories wind up as animated features in a half-hour professionally produced video. In the 2001-2002 contest, more than 7,000 essays were written in 2nd „grade classrooms statewide. The best won prizes for their student authors and teacher, plus celebrity designation during a National Agriculture Week ceremony. High school art and drama students provided graphics and narration for the animated video. Copies of the video are available for $10 plus tax or on a loan basis. ***Contact: Margaret Anderson*** (mailto:Manderson@CFBF.COM)

FLORIDA

AITC Tabloid: Florida Farm Bureau recently worked with Ag in The Classroom Inc. to update the "Life From the Land" tabloid. This has been an ongoing "newspaper in education" project of FAITC and the Orlando Sentinel. The updated piece is more issues oriented. We also had teachers modify the educational components to include our state educational standards. They also developed questions and activities that directly prepare children for their achievement tests. This year alone we reached over 125,000 school children with the tabloid.

Teacher Workshops: Multiple county teacher workshops have reached over 400 teachers this

year alone. Our State Teacher Workshop, scheduled for June, will train 150 teachers to use our state curriculum and Food Land and People.

Volunteer Conference: Florida AITC will hold its fourth annual statewide Volunteer Conference, August 8-9, in Daytona Beach. More than 100 attendees are expected. Farm Bureau women will play key roles as workshop presenters and conference planners. The participants will include Farm Bureau members and staff, extension agents and members of Florida agricultural groups. The conference provides a forum for AITC volunteers throughout the state to exchange ideas, share successes and focus on new strategies.

Ag Tag: Farm Bureau volunteers continue to successfully promote the Florida "Ag Tag". We recently earned our millionth dollar from tag proceeds. Over 15,000 cars now proudly display our agricultural auto license tag.

Mini-Grants: Florida Farm Bureau and County Farm Bureaus have given over $130,000 to educators over the previous 6 years in the form of Mini-Grants. Not only does this program reach hundreds of teachers and thousands of students each year, but it also is a great opportunity for Farm Bureau members to contribute to their local communities. ***Contact: Scott Christmas*** (mai]to:schristmas@stbcic.com)

IDAHO

"Idaho AGtivities": This book for grades pre-K to 3 is being distributed free of charge to the counties to place in day care locations, after school programs and Visitor Centers. More than half of the 15,000 copies have been shipped.

"Idea Book": This book allows county leaders an opportunity to present classroom demonstrations that have been prepared in advance. Areas include agriculture education, American heritage, consumer understanding, health and safety, plus information and media. Counties contribute materials they find successful. ***Contact: Peg Pratt*** (mai1to:ppratt@idahofb.ojg)

ILLINOIS

Adopt a Classroom: In the 2001-2002 school year, 50 Chicago classrooms were matched with 50 Illinois farmers for the Adopt a Classroom Program. The classes and farmers spend the year writing letters

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Some Power Point Presentations

The University of Georgia Agricultural Education Faculty has a large number of powerpoint presentations available. They cover topics including Ag Mechanics, Agricscience, Animal Science, Careers, Crop and Soil Science, Environmental Science, Equine, Farm Business Management, Food Science, Forestry, and General Agriculture. The Animal Science list runs to some three pages. These files may be downloaded and you can then edit and Australianise them. It appears they have been done by undergrads as part of their training courses and form a very useful resource.
The web address for these is

http://aged.ces.uga.edu:7201/cd3/powerpoints



A valuable source of Information is "Analysing Agriculture" The first 6 pages are reproduced below to give an idea of what the newsletter contains. There are also downloads available on their website, some for free such as their Canola Report.



ANALYSING AGRICULTURE



The Newsletter for Top Farmers & Agribusiness Leaders

2/2003 FEBRUARY

INTRODUCTION

With the season now more promising in Eastern Australia for most, we should concentrate on the prospects for commodity prices slightly longer term in our planning.

The strength of the AS will obviously have some effects but it will not prove to be the end of the world considering the current strength of many commodities in a world economy that is flat at best. We should keep this in mind as an improving world economy would help commodity prices remain firm.

Many of you will be reading this on or from our Website and I welcome those with access to the site. Please let us know if there are any problems. I anticipate that the site will develop over time and provide more information that may be of interest to you or others.

Thanks also to the many subscribers who have supported the newsletter for the long haul. I appreciate your support and hope we can help you to pay for your subscription many times over.

FOOD FOR THOUGHT

Laughter can be infectious but pessimism is even more so, so be an optimist and avoid infection.

IN THIS ISSUE

INTRODUCTION 1

THE WOOL ANALYSIS 2

The wool industry appears to have reached a point of longer term stability where prices should encourage a halt in falling sheep numbers as wool production could remain reasonably profitable into the foreseeable future. Prices are still high relative to other fibres and there seems limited scope for expansion of production without pushing prices lower. A smaller but more stable and profitable industry seems to be emerging for the medium term although fine wools appear to be in oversupply in the short term.

ECONOMIC OVERVIEW 6

There are many developments in the science and technology area that should give us confidence that the future is not all bleak as traditional news often indicates. A few of these developments are reviewed and highlight some of the reasons to be more optimistic in a world full of uncertainty and concern.

COMMODITY BRIEFS 7

Interest rates remain benign, the AS is continuing to strengthen against the US$ while the CRB index continues to rise, the share market is very weak, wheat is weaker as is canola in C$ values, soybeans are holding as is corn, beef, mutton and lamb have responded to widespread rain, cotton is firmer while wool is slightly weaker.

ECONOMIC INDICATORS 12

There are no inflationary pressures showing in world markets except for the price of oil. Consequently the slow GDP growth in many OECD countries is indicating the potential for a cut in interest rates rather than a rise, and this is now mentioned in Australia for later this year if economic recovery is slow. The USA continues to provide the world with markets as its CAD sets new record levels. This will continue to weaken the US$ as part of the gradual adjustment process.

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19/59

THE WOOL ANALYSIS

The Australian wool market has been relatively buoyant over the last 6 months with the broader wools maintaining prices well above the levels normally expected in comparison to the finer wools.

From all reports the shortage of the medium to broader wools is the main reason for prices holding well as consumption (demand for wool) has been falling during the past decade. This fall in use occurred despite relatively weak prices for raw wool. The price behaviour indicates a falling demand for wool although recent per capita consumption levels indicate the fall may be moderating.

It is this trend that is worthy of closer scrutiny as at some point, and this may have been reached already, stability will occur where the consumption of wool may stop falling at a price that is profitable to those who are continuing to produce.

Australia produces most of the quality wool in the world and there is surely a market for this product at an acceptable price. While wool is not an homogenous commodity and there are a wide range of variable types, the market has tended long term to move in relative parallel for the various types. The current lack of margin between the medium and finer wools is abnormal and will gradually change as market adjustments and economic conditions change. This analysis looks at the general overall situation with world wool and then at the various market forces that are driving the current market.

WORLD CONSUMPTION TRENDS

As stocks of wool are now almost depleted worldwide the consumption of wool at present is virtually dictated by the market supply. *CHART 1* is based on world estimates provided by ABARE in their December issue of Australian Commodities. The difference between consumption and production is the fall in world stocks over 2002/03 of about 100,000 tonnes greasy to only 34,000 tonnes greasy. It is this lack of any surplus wool in the world system that is driving the nervousness about supply in the current market.

CHART 1 WORLD WOOL TRENDS (greasy)

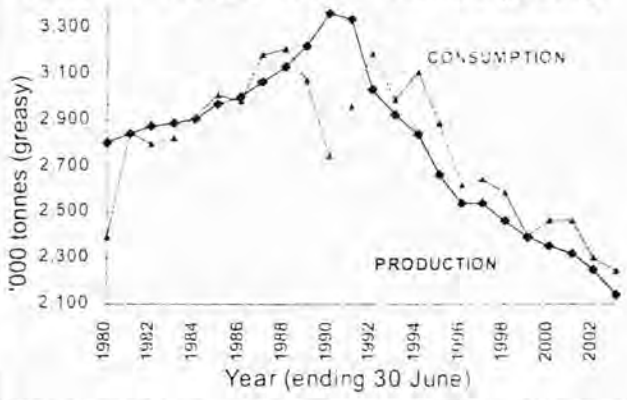


CHART 2 WORLD WOOL STOCKS

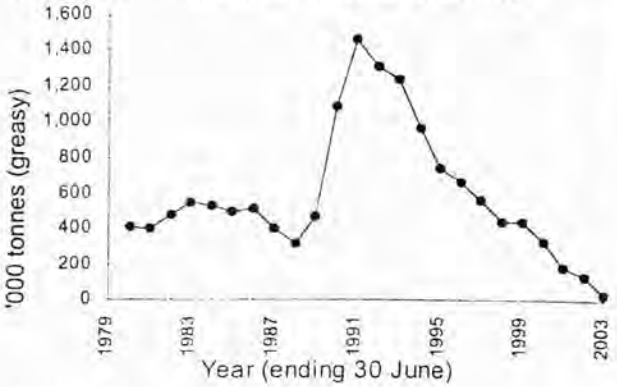


CHART 2 shows the drop in stocks over 2002/03 and the very low level that will be held in the 5 major exporting countries of Australia, New Zealand, Argentina, Uruguay and South Africa by the end of the current financial year.

It appears reasonable to assume that stocks of wool will not increase to any significant extent now that there are no schemes in place to stockpile wool if prices dip other than the choice of growers not to sell wool at the prevailing market price. This will occur to a limited extent if prices fall but will not prevent the general balance between supply and demand being maintained by price.

I have previously discussed the dilemma facing world processors and producers as wool has not been able to maintain its consumption levels during the poor price period of the 1990s as the stockpile was gradually reduced.

CHART 3 WORLD CONSUMPTION /PERSON

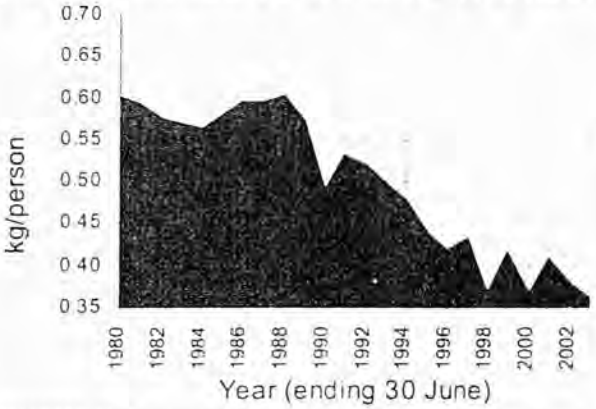


CHART 3 shows the falling consumption per person, a trend that was consistent during the 1990s. Such trends tend to continue till some point of equilibrium is reached and then stability occurs. It is whether this has been reached at present that is the key question. If we accept that the current drop in consumption might be due to the lack of supply rather than falling demand then the pattern of consumption over the last 5 years is indicating that the falling level of consumption per person might be stabilising. If this proves to be the case at a time of slow world economic growth then the market will continue to buy all the wool that is produced at reasonable prices.

It is the price at which this wool will continue to be bought that is of most interest to all producers and processors. There will need to be significant confidence developed by producers before there is likely to be any significant lift in Merino sheep numbers and thus production. Most producers are aware that any significant increase in production could quickly lead to oversupply and a resulting drop in price.

Most industry pundits are now cautiously optimistic about wool's medium term future although there is still the relationship between the fine wool price and medium wools to possibly adjust. At the end of last year Chris Wilcox of the Woolmark Company, in an address to the China International Wool and Wool textile conference in Shanghai, said that the wool industry "..can now expect a more sustainable balance between supply and demand in the medium term." This statement indicates that there is not likely to be a return to higher consumption but it may stabilise around present levels. Forecasts for world production indicate a slight increase is currently expected over the next 5 years but this does not indicate prices will attract a resurgence of world wool production.

He pointed out that the structure of wool production in Australia has also changed significantly with the move to finer wools. He indicated that there was a fall of about 30% in the production of 21 micron to 25 micron wool in 2001/02 while production of wool 19 micron and finer actually rose by nearly 20%. This significant change was driven by price as much of the stockpile was in the 21 to 25 micron range and so an oversupply of this wool kept prices subdued during most of the 1990s but the drop in production and lack of stockpile wool has led to a comparative shortage of the medium fine wools compared to the finer wools.

CHART 4 shows the % of auction wool of 4 of the main micron types since 1991/92 as sourced from the AWTA. This shows the rise in the % of the clip that the fine wools represent since the stockpile sale was completed. The 19 micron and finer wools made up 23.9% of the sales in 2001/02 compared to only 7.57% in 1992/93 when the medium wools in the stockpile dominated sales. Since 1999/2000 the 22 up to 25 micron ranges have fallen while

CHART 4 MICRON PROFILE (Aust auctions)

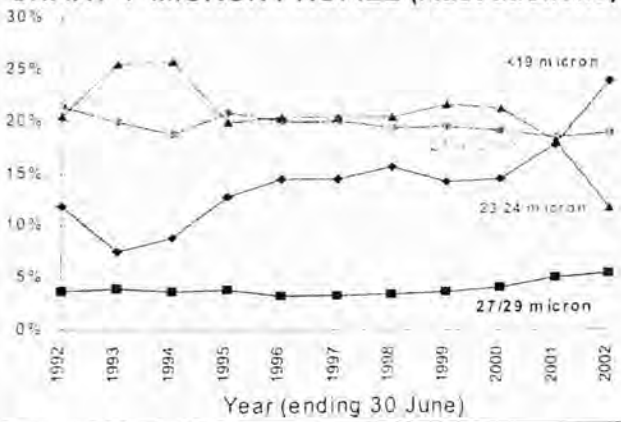
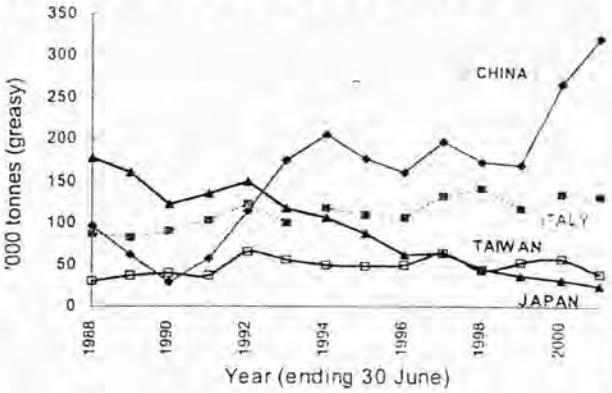


CHART 5 MAJOR USER TRENDS



the broader wools have increased their % of total sales. While the % are exaggerated by the lack of stockpile wools in the clip, the Australian clip has become finer and thus pressure on finer prices is evident compared to the medium wools where shortages are more evident.

CHART 5 shows the trends in consumption of four of Australia's major consumers. China has been the major purchaser of Australian wool as is illustrated again on *CHART 7*. Italy is the driving force behind finer wool prices and has been relatively subdued compared to the increasing supply of finer wools in the Australian clip Their consumption would increase if EU-15 economic conditions improve. Japan has been moving its processing off-shore and is unlikely to recover as our dominant market. Taiwan has been consistent but without growth.

CHART 6 shows the other main importers with the general downward trend showing in almost all cases except Korea which is showing some signs of recovery. Purchases by France have fallen significantly over the last 10 years with German purchases also falling but at a slower rate.

The USA has almost deserted the market. The major driving force behind the processing of wool has been the high level of competition from competing fibres and the consequent need to process in countries where labour is relatively cheap. China's growth in processing has been the result of joint ventures with new technology introduced as part of this major adjustment process.

CHART 6 MAJOR USER TRENDS

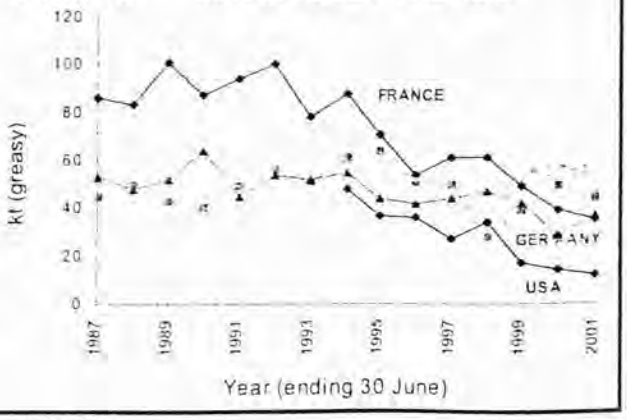


CHART 7 PURCHASES OF AUSTRALIAN WOOL (% of TOTAL EXPORTED, 1999 & 2001)

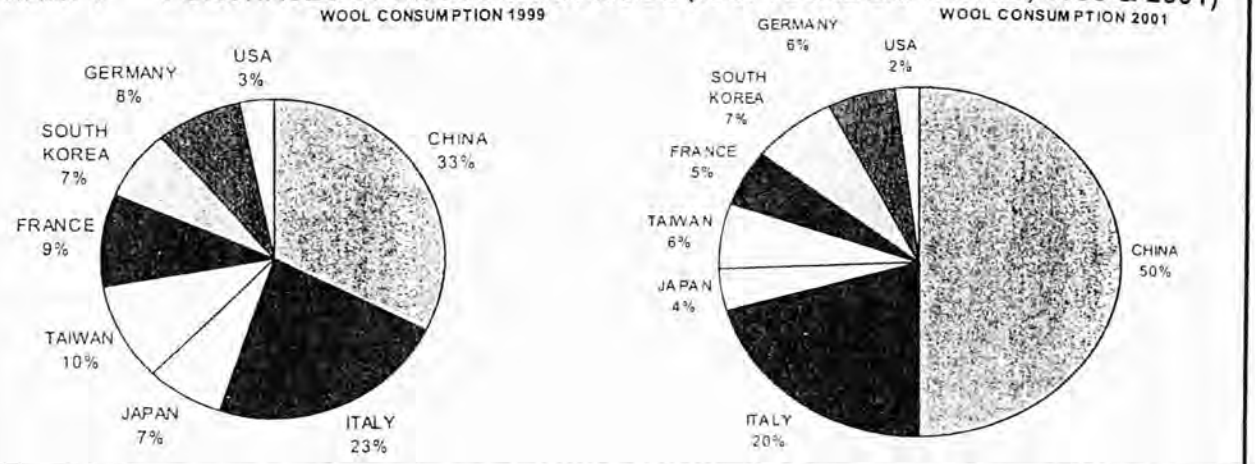


CHART 7 shows the proportion of Australian wool exports that has been purchased by our main consumers in 1999 and again in 2001. It clearly shows the dominance of China, traditionally a medium fine importer and the weakness in the Italian imports at present and the fall in all the others except South Korea which has maintained its % over the 3 year period covered. The concentration of all one's product on one market can lead to future difficulties if demand drops suddenly. Should China ever decide to reduce wool processing and substitute other fibres then prices would be subject to more volatility than if many buyers contribute to demand more equally.

The major driving forces on price in the short to medium term (2 to 3 years) will be the level of production in the main producing countries, the economic fortunes of the main consuming countries, the price of competing fibres and the AS value. An assessment of production prospects follows.

PRODUCTION TRENDS

The major producers of wool are Australia, New Zealand, Argentina, Uruguay and South Africa. Global wool production in 2002/03 is forecast to be 1,248 mkg clean, down by 2% on 2001/02 production and 8% lower than in 1997/98. *CHART 8* shows the trends in Australia's shorn wool production with 2002/03 forecast at 500 kt by ABARE and 495 kt by the AWIPFC (Australian Wool Innovation Production Forecasting Committee). This will be the lowest level since 1950/51. The AWIPFC expects fine wool production (19 micron and less) to rise slightly in 2002/03 and make up 28% of all wool produced while medium fine will fall to 44% of the clip. The major production decline is expected to be in the middle micron range where shortages are already quite acute.

Australia's wool production is not expected to rise quickly after the drought affecting much of Australia passes and certainly will not rise unless prices remain attractive to production. Alternative enterprises remain relatively attractive and a cautious approach to increasing production will ensue. I expect the Australian industry might be close to its longer term viable size at which profits should be possible for those with good management practices. Any rapid increase in production could quickly oversupply a much reduced world market.

As shown on *CHART 9*, New Zealand production is expected to increase in 2002/03 by about 6 kt compared with Australia's drop of between 55 kt and 60 kt. In the longer run NZ production is expected to continue to slowly decline as land use for dairying and deer proves more profitable. MAF have forecast falling production through to 2006 which will keep pressure on broader wool supplies from NZ.

CHART 8 AUSTRALIAN PRODUCTION

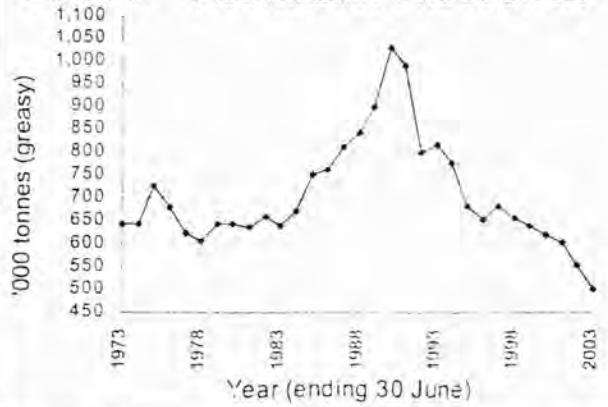


CHART 9 NEW ZEALAND PRODUCTION

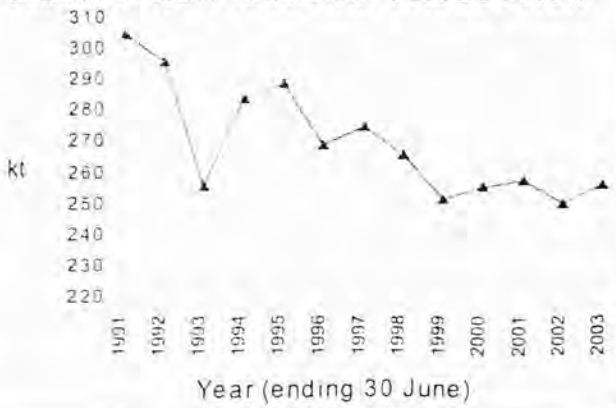
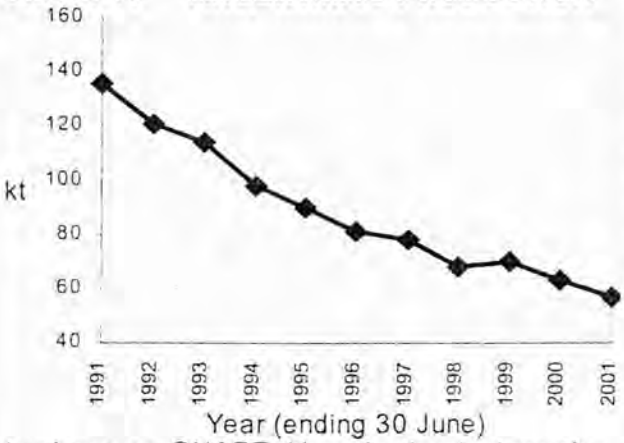


CHART 10 URUGUAYAN PRODUCTION



Uruguay produces mainly broader wools of the 25 to 32 micron range and its production is expected to continue to fall in the current year. Devaluation of its currency and better wool prices are expected to attract higher production but the increases will be minimal compared to the drop in Australian production. The trends in Uruguay, as shown on *CHART 10*, is adding to the pressure on the world medium wool supply situation.

CHART 11 ARGENTINA'S PRODUCTION



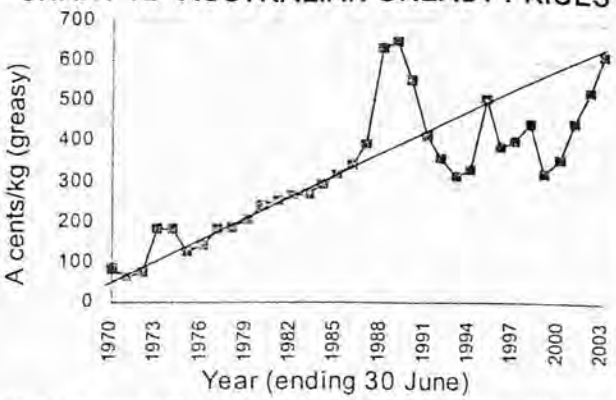
As shown on *CHART 11* production in Argentina continued to fall up to 2001. Reports indicate that this trend has continued although there could be some slight recovery in the current year but not enough to be significant in terms of the drop in world production.

In addition, China's domestic production remains high at about 290 kt but appears to have peaked and seems likely to drop over the next few years as environmental limitations and other land uses become more profitable. This should add support for imports if demand in China continues to grow.

South African production has been falling and is not expected to rise to any extent in 2002/03.

Overall there are no real indications of any significant increase in world wool production over the next 2 to 3 years. If an increase is demanded by markets then prices will need to remain high for a protracted period to attract producers back into the industry. Australia is the most likely source of additional production but this will only occur if confidence in prices can be generated by market behaviour. The key to future prices will be the level of demand for woollen and wool blend products.

CHART 12 AUSTRALIAN GREASY PRICES



PRICE & PROSPECTS

CHART 12 shows the movement in average wool prices over the last 33 years. Prices have now moved up to a long term trend line which indicates to some analysts that the price should hold around present levels.

In addition the current oil price surge has now pushed polyester prices up substantially over the last 2 months and thus reduced the wool/polyester ratio although it is still above historical levels. The wool/cotton ratio is also still well above historical levels. I have previously identified the general lack of progress in productivity gains in the wool industry compared to other fibre industries. This implies that wool prices will need to stabilise at a level above the traditional ratios for profitable production.

There appears to be a growing demand for woollen products from within China as well as for its export market and both China and India, with their cheap processing capacity, seem to be the basis of the future of the medium fine industry. The weakness in the EU-15 economy and in Japan combined with higher production will continue to keep pressure on finer wool prices. This suggests the realignment between fine and medium fine wool prices is more likely to be a drop in the medium fine prices rather than a resurgence in fine wool prices. Medium fine prices at present may be near a cyclical high.

CONCLUSIONS

There could be some volatility in wool prices because of the domination of China as the main consumer of Australian wool. The industry may have reached a point of stability at which more profitable prices will be maintained in the foreseeable future. There is unlikely to be any real increase in demand for wool at these price levels and an ongoing substitution in fibre use will see the industry stabilise production slightly above present drought affected levels with prices having seen their peaks in this cycle.

ECONOMIC OVERVIEW

In all the uncertainty and gloom about current world developments I thought I might change the theme this month by highlighting some of the more positive world developments that will impact on the lives of future generations and even ourselves in some cases. While many snippets are a bit more science than economic focused, they will all have some major effects on our economic lives and on the long term development of a more sustainable world.

GM Products

The development of GM materials and the perfection of the technique are inevitable in the long run . . . such is the progress of science. While I am an advocate of the go slow approach (eg the moratorium in the UK and now talked about here), GM development is like electricity. When first developed it was feared it would kill all and was too dangerous to ever use widely. The potential for speeding the development of more efficient and more environmentally benign products is enormous and this dictates that the techniques will be refined to our long term and widespread benefit.

Stem Cells

Without wanting to enter the ethical debate which will be resolved, there are obviously massive potential benefits to human development and care from this technology. To deny its refinement and development would be to deny the possibility of continuing to improve our individual well being throughout our lives. As with many drugs there will be risks but the overall potential benefits are enormous and we should look forward to our children obtaining undreamt of benefits from such a development.

Hydrogen Cell Development

While the EU-15 and the USA are moving down different paths in the development of hydrogen fuels for the new energy era, there is no doubt this technology will allow the world to gradually reduce its dependence on non-renewable energy sources. The EU-15 is opting for a significant increase in renewable energy development although it is more expensive than production based on fossil fuels. The USA, because of its massive coal reserves, is concentrating on the cheaper production of hydrogen fuel from coal, oil and gas.

The EU-15 has set a target of 22% of all energy development from renewables by 2010 compared to 11% at present. The EU-15 intends to use intermittent renewable energy such as wind power to produce hydrogen which can be stored unlike excess electricity and to use hydrogen developed electricity to fill the peaks in power demand which are more expensive to generate using fossil fuels in any case.

No matter which source is used, providing the carbon dioxide generated in the production of hydrogen is not released, the use of hydrogen cells as the fuel for most engines is an inevitable positive development in our future.

Population Growth

Although not so positive for agriculture, growth in the world population is slowing more rapidly than has been expected by many forecasters over the past 10 years. This trend has been greatest in the developed world. In addition poorer countries are losing population faster than expected through AIDS in particular. This overall trend is positive because in the longer run the world's population should be able to comfortably develop its place in a stable environment although there are some major challenges ahead in densely populated countries.

Nuclear Power

Interesting developments in the thinking about the use of nuclear power suggest it may be scientifically possible to use Uranium-238 as the source of fuel rather than the 235 and so utilise the "waste" for many years rather than needing to dispose of it as occurs at present. If such a potential proves possible then this cheap source of energy can be refined in a way that avoids the production of weapons grade material in new nuclear power generation. No doubt science will eventually produce a cleaner, if not clean, method of utilising the enormous potential of nuclear power to our longer term benefit.

Tissue Engineering

The development of replacement bones by tissue culturing is not yet possible although the technology for growing many other body parts is developing rapidly. There are early successes in Britain in testing new processes, involving magnetism among other technologies, for growing replacement bones on scaffolding. While this possibility is many years away as yet, the potential for such developments could be the saviour in future for those with a need for bone repair or replacement.

Communications

While the commercialisation of communications develops through a rocky commercial road, the potential for the use of fibre optics continues to develop. New developments in the potential for light transfer through fibres suggest that speed and convenience will develop quickly and become cheaper with wider use.

The potential development of a new method of fibre production with greater light transmission powers is under research and this would mean in the long run the replacement of current fibre optic cables. While such a development would probably be years away, the potential for faster and greater volumes of data movement is continuing to emerge.

Sample work

YEAR 7 AGRICULTURE ASSIGNMENT

This assignment is designed to allow students to investigate some aspects of the lives of famous agriculturalists and their impact on Australias development. The depth of investigation that you undertake will vary depending on how you choose to structure your report. You must attempt to gain a total of 100 credits. The depth of investigation determines how many credits will be allowable. You may mix and match levels to reach your 100 credits, for example you could do 10 people at the 10 credit level =100

or 5 people at the 20 credit level= 100
or 2 people at the 40 credit level and 1 at the 20 credit level = 100
or any combination to reach 100 credits.

- What do you need to do for:

10 credits: A description of the persons contribution to agriculture (at least 5 lines of writing)

20 credits: A drawing of the person, a description of their contibution to agriculture (at least 10 lines of writing).

40 credits A drawing of the person, a description of their life and their importance to agriculture (1 page) *and one of the following substantial pieces of creative writing*

-imagine you have worked for that person for the summer school holidays and are writing letters home sharing details of your experience

or -you are a reporter and have the task of interviewing that person to write a newspaper column

or -you are that persons friend and want to write a letter to that persons grand children to tell them how they should feel about their grandparent and why

The famous agriculturalists that you can use are:

a. William Farrer (wheat)
b. John and/or Elizabeth MacArthur (sheep)
c. Sidney Kidman (cattle/pastoral)
d. H.V. McKay (machinery)
e. James Ruse (wheat)
f. John Ridley (machinery)
g. John and David Shearer (machinery)
h. Thomas Mort (refrigeration)
i. Christian Koertz (wool press)
j. The Peppin brothers (sheep)
k. Caroline Atkinson (botany)
l. Samuel Marsden (sheep)
m. Professor William Lowrie (fertilizers)

Marks will be given for presentation, accuracy of information, and deducted for copying straight from books. Use your own words!
You must indicate for each person the credit level you are attempting!



SAMPLE UNIT

YEAR 10

ALTERNATIVE FARM ENTERPRISES UNIT

TIME AVAILABLE :24 PERIODS

OVERALL AIM: To develop an awareness of the range of alternative enterprises that can be carried out on farms and the difficulties involved in conducting untried things.

AREAS OF FOCUS:

- Interactions between plants, animals, resources ,minerals, people and technology
- Management, planning establishment and management, species selection and breeding, factors affecting production, timing of operations, market and product appraisal, economic and business considerations.
- Sustainability- impact of enterprises on the environment, conservation practices, economic viability.
- **PROCESSES:**

Will involve design, conducting investigations, using technology appropriate to agriculture and communicating in a range of forms.

UNIT OUTCOMES :By the completion of the unit the student should be able to demonstrate some or all of the stage outcomes:

SKILLS OUTCOMES

By the end of the unit the student should have

1. performed routine plant production techniques appropriate to the stage of production for ONE alternative plant enterprise.
2. used, tabulated the results and presented the results graphically
3. Identified some possible strategies to overcome problems associated with one area which has been found.
4. monitors animals to determine when to market animal products.
5. designs and conducts controlled experiments in agricultural contexts.
6. communicates effectively with team members to establish priorities, manage time and resources to achieve goals.

KNOWLEDGE OUTCOMES

By the end of the unit the student should be able to

1. describe the current trends in Australian Agriculture- Fewer and poorer farmers
2. outline the reasons for declining terms of trade – market price instability, nature of export demand, cost/price squeeze, production risk
2. explain ways farmers may stabilize incomes and mitigate uncertainty- insurance, contracts,diversification,flxibility, avoidance of risky enterprises.
3. Describe the features of traditional enterprises.
4. complete a table of the alternatives available to a farmer for high return alternate enterprises.
5. outline the steps involved in preparing a farm to carry out an alternative enterprise including goal setting, resources available, selection of best alternative, financing, putting plan into action, monitoring progress.
6. discuss the advantages and disadvantages of being an innovator in farming.

ASSESSMENT OF OUTCOMES

TEST	20%
PROJECT	60%
PRACTICAL REPORTS	10%
BOOK	10%
TOTAL	100%

Samples of student work will be kept for reporting to parents as necessary.

SUGGESTED TEACHING / LEARNING STRATEGIES AND SEQUENCE:

1. Introduction

* Current trends in Australian Agriculture "fewer and poorer farmers"

*Reasons for farmers declining terms of trade- market price instability.

- Nature of export demand.

- Cost price squeeze.
- Production risk (drought **etc)**

2. Ways farmers can stabilise incomes and mitigate uncertainty-
*Insurance (ie Hail insurance)
*Contracts (ie vegetables)
*Diversifcation (Mixed fanns Vs specialised beef properties)
* Flexibility (dual purpose breeds)
* Avoid risky enterprises

3. **Features** of traditional farming enterprises (wheat, sheep, cattle etc) Collect market trends for ONE such enterprise over the long ten-n. Identify reasons for price fluctuations over this period.
List factors affecting fan-ner returns for this product.

4. Research ALTERNATIVE farming systems that may offer higher returns
and a secure 'income to farmers.(Angora rabbits, ostrich, yabbies.)
List the advantages and the likely risks involved with each alternative.

5. Outline the steps you should follow to establish your alternative enterprise
*Goal setting
*Consider resources available. Including physical, financial and labour.
*List possible enterprises that match resources.
*Choosing which best suits
*Financing . prepare budgets.
*Putting the plan into action.
* Monitoring the progress.

6. The protagonists Vs Traditionalist.
Discuss the advantages and disadvantages of being an innovator in fanning. Why do some farmers have difficulty coping with change? (laggards) This can become a debate topic

Year10 AGRICULTURE ASSESSMENT TASK 1

Alternative Agricultural Enterprise Year 10 Assignment

Name ..... **Mark** .....

Section A (80%)

Excellent Good Incomplete

Current Market
- Current marketing methods
- Current supply
- Current Gross Margin

Future Market Process
- Future local and international supply and demand trends
- Future marketing methods
- Potential marketing products and outlets

Description of enterprise
- Form of production
- Production cycle: joining, harvesting, planting,
- Inputs
- Yields
- Pollution threats
- Management calendar
- Specialized requirements, ie. Machinery, fencing, tools

Enterprise requirements
- Land
- Breeding material
- Legal requirement

- Physical resources, water, buildings, fencing etc
- Management skills
- Technical assistance
- Pest and Disease threats

Title Page			
Contents			
Readability			
Pictures / Diagrams			
Presentation			
Five sources A, B.C.D.E			
Reference Page			

Section B 20%

Originality			
Readability			
Information			
Pictures / Diagrams			
Presentation			

Punctuality 100% 80% 60% 40% 20% 00%

Comments _____

_____

_____

Alternative Agriculture Assignment.

You must reference each of the following areas in section A of the assignment:-

A Library (Reference books)
B Newspapers The Land, Alternative Farmer, Farm Journal
C Internet , Field days, Seminars
D NSW Agriculture Department, DPI, Extension services
E Farming Organizations (see Farming Alternative Directory The Land 27th Jan 2000)

You will have to write to your farming organization a sample letter is provided. Please note letter should be sent ASAP and you may want to write to a number of organizations as some are very slow in providing information.

The Organization address Your Address
Date

Dear Sir / Madam

I am currently undertaking a topic in year 10 Agriculture called Alternative Agriculture and have chosen the _____ industry for my assignment. Could you please forward me information on the following aspects.

Current Markets
- Current marketing methods
- Current supply
- Current Gross Margin

Future Market Process
- Future local and international supply and demand trends
- Future marketing methods
- Potential marketing products and outlets

Description of enterprise

- Form of production
- Production cycle: joining, harvesting, planting.
- Inputs
- Yields
- Pollution threats
- Management calendar
- Specialized requirements, ie. Machinery, fencing, tools

Enterprise requirements

- Land
- Breeding material
- Legal requirement
- Physical resources, water, buildings, fencing etc
- Management skills
- Technical assistance
- Pest and Disease threats

I would appreciate any information you can provide

Thanking you in anticipation

Yours sincerely,

Your signature

Print your name

Enclose a self addressed envelope for the return of information.



A LITTLE DITCH GOES A LONG WAY

A farmer and his son were working hard on his barn when a city boy stopped to ask for directions. After helping the lost driver, the farmer went back to jacking up the small barn while putting blocks of wood under each corner.

The city boy just had to ask, "What are you doing?"

"Well," said the farmer, "My prize mule keeps scraping his ears on the barn each time he goes through the door and I just can't have that."

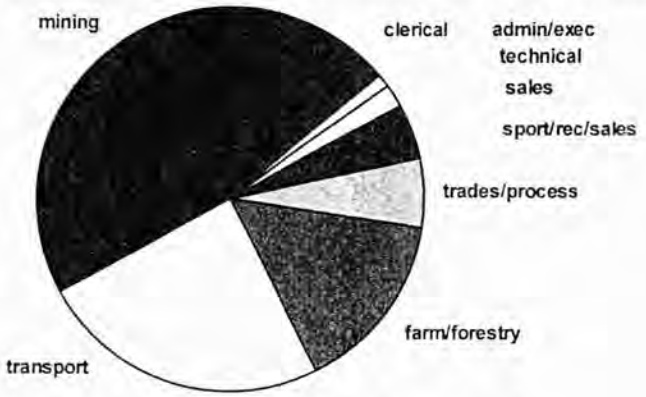
"Why don't you just dig a little ditch that goes under the doorway?"

The farmer said, "Thanks, I'll think about it" and the driver pulled away. As the car heads down the road, the farmer turned to his son, "Dumb city slicker. The mule keeps scraping his ears, not his feet!"

FARM SAFETY
WORKSHEET

Agriculture is a very dangerous occupation and farms are the site of many deaths and serious injuries each year. Many of these can be avoided by taking simple precautions and being aware of danger.

The following graph compares work related deaths from a range of industries



1. which do you think are the three most hazardous injuries?

2. What things do these industries have in common?

The following table shows causes of on-farm deaths in Australia

Cause of death	% of farm deaths
Powered Machine	30
Tractor / implement	40
Horses	6
Other	24

3. Graph this data

4. Which is the greatest cause of death?

5. What are some of the causes that would have been classified as "other"

In the North West Plains on NSW the common "agents of injury" (not necessarily deaths) for people coming to Accident and Emergency units of hospitals are

- agbikes: 2,3 and 4 wheeled ATV's
- horses, and also dogs and cattle
- other agricultural machiney

These injuries were most likely to occur

- when doing maintenance
- agbike riding
- horse riding

Summary of injury data

INJURY PROBLEM	AT RISK GROUP	MAIN PROBLEM
Tractors & Linkages	Farmers/workers/children	Tractor deaths
Farm Machinery	Farmers/workers	Deaths/ Injury
Ag Bikes (2, 3 4 wheel)	Farmers/workers/ Teenagers	Serious Injury
Horses	Young People / Farmers	Serious Injury
Farm Dams/ Waterways	Toddlers	Drowning

6. Why do health workers want to spread the safety message to school students?

7. What do you think the term "at risk group" means

8. For each of these injury problems identify means by which you think these injuries could be reduced or prevented

Other Types of Farm Hazards

Farm Chemicals- these may have a range of effects:

- Acute poisoning- victim is poisoned from one exposure, symptoms obvious, dose related
- Chronic poisoning- levels of chemical in body gradually build up and may either give non specific symptoms (headaches, aches pains, unwell feeling) or reach a threshold level from repeated exposure
- mutagenic- cause malformations in genetic information
- teratogenic- cause damage to developing foetus
- carcinogenic- cause cancer.

9. construct a table in your book showing the health effects of farm chemicals.

Farm Noise and Hearing Loss

Over 70% of farmers suffer from some form of Noise Induced Hearing Loss(NIHL).
This can result from long term exposure to low intensity sound (eg sitting on a working tractor for hours) or from short term exposure to High Intensity sound eg using a chainsaw (high noise level for varying periods) or firing a gun (ultra high damaging levels)

10. (a) How can NIHL be prevented on farms,
(b) what protection methods can be used to reduce noise?
(c) Use library resources to find out how noisy the following are:
- tractor, chainsaw, rifle, jet engine, conversation
(d) Is hearing loss usually across all frequencies or just some, if so which ones.

Animal Diseases which can be spread to Man (Zoonoses) include:

Hydatids	Leptosporosis	Q Fever
Brucellosis	Orf (Scabby Mouth)	Psittacosis
Arboviruses (Ross River)	Erisepiloid	Worms

11. What precautions should people take to avoid these diseases?
12. You are to investigate two of the Zoonoses listed above and write at least 10 lines about each one. Include effect on man.

Respiratory Diseses:

These include asthma and hayfever caused by allergens and dusts, and Chronic Lung Disease from fungal spores.

Stress :

Mental health and stress are a very important Farm related problem.
13. What are some sources of stress for farmers.
14. Find out how farmers may reduce or manage their stress.

Skin Cancer:

15. How can skin cancer be reduced or prevented.



G Harris

AGRICULTURE
DESIGN TASK

Plant propagation may be carried out using a number of techniques, including sexual and asexual means.
Many of these methods require special facilities to nurture the tender young cuttings. Greenhouses are often used and growing plants in soiless growing media by Hydroponics is becomming very well accepted.

Working in design teams of three

- you are to conduct research into the type of facilities and materials that would be needed to build a greenhouse, and produce a design for a greenhouse suitable for a commercial plant nursery. Include mention of the facilities that you would need to provide.

- Your second task is to research the different methods used to grow plants by hydroponics. Produce a report that identifies the different methods, and give the relevant benefits or disadvantages of each type. The team should also produce a detailed design for a hydroponic system suitable for growing 20 lettuces.

- Your report should outline what input each of the design team had in producing your report.



NSW ASSOCIATION OF AGRICULTURE TEACHERS

1. **NAME-**

The name of the Association is the NSW Association of Agriculture Teachers (hereinafter called the Association).

2. **OBJECTS**

The objects for which the Association is established are,

a) to encourage an interest and excellence in Agriculture.
b) to foster the teaching of Agriculture and Associated activities.
c) to arrange and assist in arranging, meetings, conferences, and other activities in keeping with the objects of the Association.
d) to co-operate with other bodies, within NSW and elsewhere, which share an interest in Agriculture.
e) to publish a Journal and other such material as is consonant with the objects of the Association.

3. **MEMBERSHIP**

a) Ordinary The Association is open to anyone with an interest in Agriculture. Applications for membership shall be made in writing.
All subscriptions shill become due and payable on the thirty first day of December for the following biennium.

b) Affiliate The Executive may arrange affiliate membership with other Associations which share objects similar to those of the Association, and which engage in activities that do not conflict with those of. the Association. In arranging the Affiliate membership fee the Executive is to set the rate to cover the entire cost of al of the printed material for the current year and the postage involved. Affiliate members enjoy all the rights of ordinary members when they attend meetings of the Association.
c) Student The Executive may accept student members at *50%* of full fee.
d) Life
   i) Nomination by present financial members of the Association will be required on the nomination form enclosed in this BAAT.
   ii) Support materials must be provided together with referees. to enable a full resume to be developed and presented in BAAT.
   iii) A summary of the resume is to be posted prior to the AGM at the biennial conference.
   iv) Voting will be decided on a 2/3 majority of the *Members* voting.
   v) Successful members will become life members as of the date of the meeting, and be invited to receive their life membership at the following Biennial Conference.
   e) In all cases of membership ordinary. affiliate, and student. any rejection of a application for membership must be considered by the Executive.

(f) The membership year will run from January to December. Any membership payments made after 1st November will carry on the to next year's membership.

4. CESSATION OF MEMBERSHIP

a) If a member does not pay the biennial subscription when it falls due, or does not pay within sixty days any other sum falling due to the Association, such membership shall thereupon cease and no rights of membership may be exercised until default in payment has been remedied.

5. GENERAL MEETING

a) General meetings have the power to determine the policy of the Association.
b) The Association may, where possible, hold a general meeting once every two years.
c) Special general meetings may be called in term time by the President of the Association at the written request of any ten members.
d) The Quorum at a general meeting shall be Four (4) members and no business shall be transacted at any general meeting unless a quorum of members is present. Thirty minutes is to be allowed from the notified time of the commencement of the meeting for a quorum to be present.
e) Section (c) does not preclude any general meeting passing a recommendation for the Executive's consideration either by vote or acclamation. Executive is bound to consider such motions but not to accept them.
f) The constitution of the Association may be amended by a special resolution of half or more of the members of the Association who are present at a general meeting of which at least 21 days written notice has been given.
g) Any changes to the subscription rate of the association are to be made by vote at the general meeting of the association

6. BIENNIAL GENERAL MEETING

a) The biennial general meeting shall receive the Executive report of the activities of the Association for the previous term. On adoption, this report becomes the **Biennial Report** of the Association.

b) The biennial general meeting shall receive the Treasurer's audited statement for the previous financial term. On adoption, this report becomes the **Biennial Financial Report** of the Association.

c) The newly appointed executive will select an appropriate auditor at their earliest convenience for the next 2 years

d) The Biennial General Meeting shall elect the following honorary officers of the Association.

- The President
- The Secretary
- The Treasurer
- The Publications Officer
- Two Biennial Conference Organisers.
- Technology and Communication Officer

e) Returning Officer and Elections

The Biennial General Meeting shall elect a returning officer for the conduct of the elections at the next ensuing Biennial General Meeting. Nominations of members for the various positions shall be called for in the notice convening the Biennial General Meeting. If no or insufficient nominations have been received for a position prior to the General meeting, nominations may be accepted from the floor of the meeting.

All nominations, whether prior to the meeting, or from the floor, must be seconded. Only financial members may nominate or second. Voting shall be by secret ballot and in person at the meeting.

Where there is a single position to be filled, votes shall be cast and counted with the preferential system; where there is more than one position to be filled, each member voting may cast as many votes as there are positions to be filled and votes shall be counted in accordance with the first-past-the-post system. In all cases the conduct of the elections shall be in the hand of the returning officer whose decisions shall be final.

7. **THE EXECUTIVE** shall consist of

a) The 4 elected members of the Association

b) The elected editors (up to 3 in number) of the Bulletin of the NSW Association of Agriculture teachers... (BAAT)

8. **THE ADVISORY COUNCIL AND BRANCHES OF THE ASSOCIATION**

a) The Executive may call a meeting of an Advisory Council. The advisory council shall be free to advise the Association about any matter connected with Agriculture, or the future development of the Association, but it has no power to make binding resolutions.

b) Ten or members of the Association may apply to the Executive for permission to form a Branch of the Association. If the Executive grants such permission it may do so on such terms as it sees fit and it may at any time in its absolute discretion vary those terms or suspend recognition until the next biennial meeting.

In exercising these powers the Executive shall have regard to the interests of the Association at large, and of its members generally, and the need to both encourage and co-ordinate the activities of the Association, its members and all branches.

Although branches shall finance their won activities any may not commit the Association to any expenditure without prior specific approval of the Executive or the Treasurer. the Executive may make grants, either general or specific. to Branches to assist in their activities. Branches shall keep the Executive full informed of their plans. activities and financial position by regular communication. and in a report which the Branch should submit to the Biennial General Meeting.

9. **POWERS AND DUTIES OF THE EXECUTIVE**

a) The business of the Association shall be manager by the Executive which

may authorize all payments on behalf of the Association, which are not prerogative of a general meeting, in conformity with the objects of the Association.

b) The Executive may require an officer of the Association to report to it about activities which he has conducted on behalf of the Association and may request him to cease these activities until the next general meeting, when any matter under dispute may be referred to the members.

c) The Executive shall cause minutes to be made,
- of all payment of officers of the Association,
- of the names of all members of the Executive present at all meetings of the Association and of the Executive, and,
- of all regular motions at all meetings of the Association and the Executive.

d) The Executive may invite members to assist in all or part of its deliberations. Such co-opted members may vote on formal motions.

e) The Executive shall have the power to fill any vacant office. Offices may be declared vacant if no nomination is accepted by the Biennial General meeting or if an officer resigns or fails to accept the Presidents invitation to be present at three successive meetings of which due notice has been given.

f) The Executive may empower an assistant treasurer to take some or all of the duties of the Treasurer if the Treasurer requests assistance or, if, owing to any cause, the Treasurer is unable to fulfill part or whole of his duties.

g) The Executive may nominate a past President to act in place of the President if by any chance, the president is unable to fulfill his duties.

h) The Executive may request the Secretariat to implement decisions or it may grant discretionary powers to deal with certain matters.

10. FUNCTION OF THE SECRETARIAT

a) The Secretariat may meet in the months between the meetings of the Executive to review,
- correspondence
- accounts
- progress of officers in fulfilling the motions of the Executive.
- to resolve matters delegated to it by the Executive, and in general, to provide for continuity of action.

11. THE PUBLICATIONS EDITOR/S

The Publications Editor/s shall be responsible for the handling of all routine matters connected with the issue of publications which have been established by the Executive.

12. SUBCOMMITTEES

a) It is the policy of the Association to foster active work of voluntary sub-committees and to see tha this work receives authorised support and due notice in the publications of the Association.

b) The Executive may set up subcommittees to prepare business for the Executive meeting or to carry out worthwhile activities for the Association.

c) Convenors of such sub-committees must report all meetings of their committees to the next meeting of the Executive.

d) No proposals involving the expenditure of the moneys of the Association shall be effected without the approval of the Executive.

e) The name of the Association must not be used by a sub-committee for any public action except with the prior approval of the Executive.

f) The President, the Secretary and the Treasurer of the Association have the right, ex officio, to attend any sub-committee meeting, and the Executive may nominate on of its members to attend meetings.

13. DUTIES OF OFFICE BEARERS

a) The President

1. Shall represent and stand for the Association during his/her term of office.
2. Shall preside over public and general meetings of the Association, the meetings of the Executive, and of the Advisory Council.
3. Shall be in charge of the business of the Association, and the other officers of the Association shall provide him with material necessary to direct the course of meetings and to represent the Association.

b) The Secretary

The Secretary shall be responsible for.

1. receiving, filing and preserving all correspondence of the Association
2. notifying the President of its contents in time for general meetings and Executive and Secretariat meetings as authorised by the President.
3. sending out notices and agenda for general meetings and Executive and Secretariat meetings as authorised by the President.
4. acknowledging or answering all correspondence as required by the Executive.
5. gathering and preparing materials for reports including the Executive's report of the activities of the Association.

c) The Treasurer

The Treasurer shall be responsible for.

1. the receipt and expenditure of all monies of the Association and maintaining the balance of the same.
2. the financial records of the Association.
3. preparing a balance sheet for audit prior to the Biennial General Meeting.
4. maintaining a list of financial members.
5. notifying personnel responsible for mailing, re. new members.
6. preparing budget estimates for income and expenditure at about October of each Biennium.
7. supervising the financial arrangements for all publications and the issue of complimentary copies of Journals and other publications.

d) Technology and Communication

1. Development, maintenance and up keep of an Association Web Site.

2. Maintenance and up keep of the Associations Master Data Base.

14. THE EDITOR/S

The Editors shall be responsible as part of the Executive for, maintaining the standard of the Associations Journal in accordance with the objects of the Association and in consultation with the Executive.

15 THE J.A. SUTHERLAND AWARD

The criteria for the awarding of the J. A. Sutherland Award are as follows:-

i. The J A (Alan) Sutherland Memorial Award be presented to an Agriculture teacher judged to have made a significant contribution to the teaching of Agriculture;

ii. The recipient be a secondary school teacher who is a member of the NSW Association of Agriculture Teachers:

iii. The award be judged by a committee comprising the executive of four and two members nominated by the committee:

iv. Nominations for the award be made by any member or group of members in writing at least three months prior to the Biennial Conference:

v. Nominations or a summary of nominations to be included in the Association Newsletter prior to the Biennial Conference:

vi. The judging committee reserves the right not to make an award in any Biennial: the award takes the form of -

a) a perpetual trophy inscribed with the name and year of the recipient, an

b) a personal award to the recipient:

vii. in the event of the Biennial conference not being funded, the award be made and the members advised in the next edition of BAAT.

A significant contribution should include -

- *a work or event from which many benefit*

OR

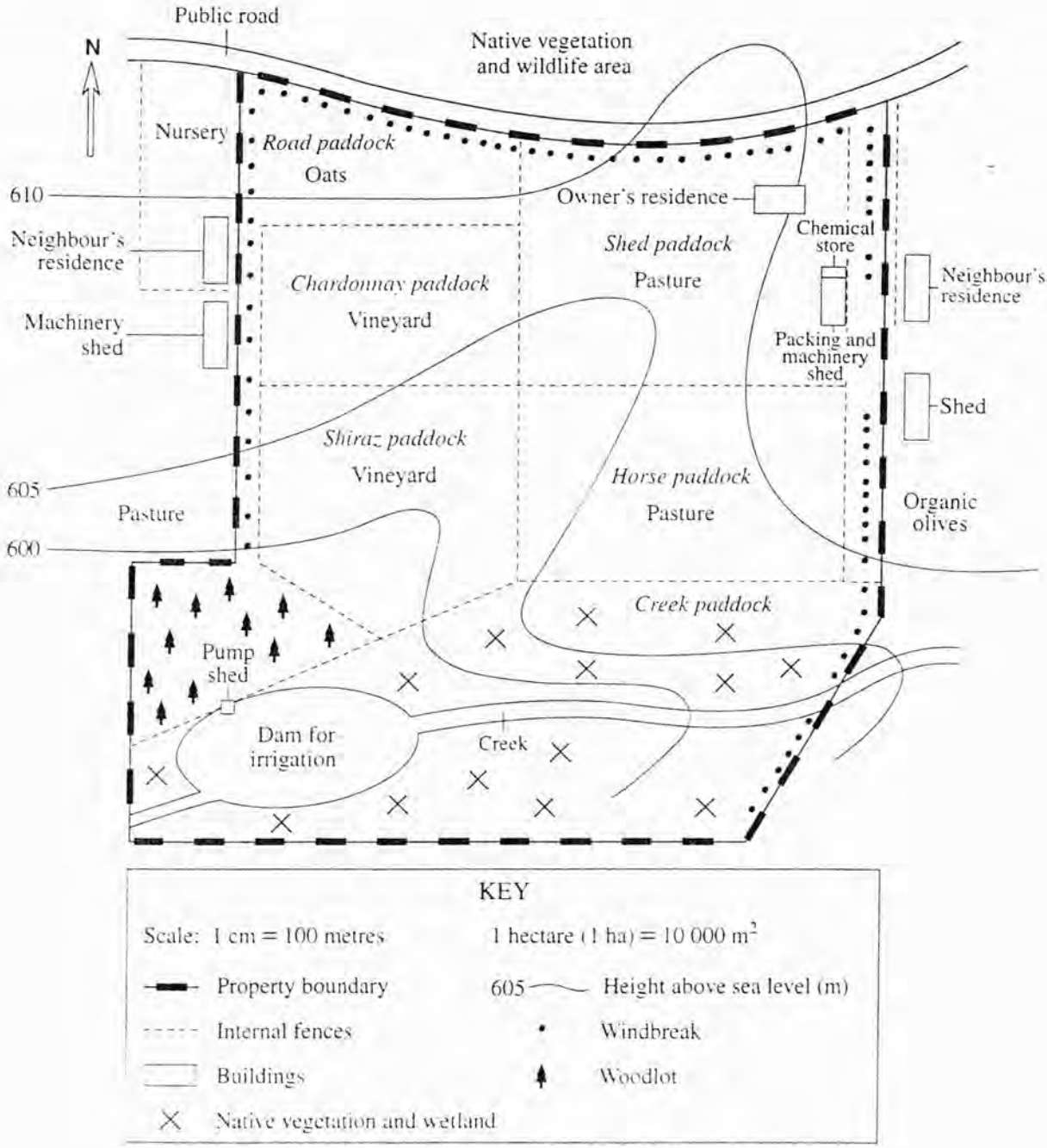
- *an outstanding worker*

OR

- *an innovation*

This constitution includes amendments made at Tocal Conference , January 15 2003

Use the plan of Cudgegong Farm provided to answer Questions 16 and 17.



Question 16 (8 marks) **Marks**

(This question relates to the diagram on page 10.)

The owner of Cudgegong Farm wishes to spray the *Horse paddock* with a non-selective herbicide, before sowing a winter crop in February.

(a) Name TWO sensitive areas from the plan (one from an altitude higher than the *Horse paddock* and one from an altitude lower than the *Horse paddock*) that could be affected by the spraying activity.

Sensitive area at an altitude higher than the *Horse paddock*.

Organic olives, Nursery, Native vegetation and wildlife area 1

Sensitive area at an altitude lower than the *Horse paddock*.

Shiraz, creek, dam, pasture. 1

(b) For each area nominated in part (a), describe how the chemical could move to that area. 2

Spray drift, run off, absorbed into the ground and leached into the creek, washed off by heavy rain

(c) Describe TWO potential effects of chemical movement into the sensitive areas you have nominated. 2

- damage the crop or pasture growing in this area
- Contaminate the creek and dam water
- may kill native vegetation and wildlife
- Contaminated products; • loss of organic status

(d) For one of the sensitive areas you have nominated, identify and analyse ONE control measure that will minimise the risk of the chemical impacting on that area. 2

- Establish a wind break along the boundary
- Minimise spray drift - dont spray on a windy day and increase droplet size, reduce speed of sprayer.
- Use of levy banks to divert ground water run off
- Establish a buffer zone between the paddock and the creek, plant trees to use ground water

Question 17 (5 marks)

Marks

(This question relates to the diagram on page 10.)

(a) Use a ruler and the diagram scale to calculate the area of the *Horse paddock* on Cudgegong Farm in hectares. (Show working.) 2

500m x 300m = 150000 m^2 ÷ 10,000

Area of paddock is 15 ha

(b) The farmer wishes to apply the non-selective herbicide at a rate of 3 L per ha. How much of the non-selective herbicide will be needed? (Show working.) 1

3L x 15ha = 45 Litres

(c) The chemical is to be applied at a dilution rate of 1 : 100. How much water will be required? (Show working.) 1

45 Litres x 100 = 4500 Litres of water

(d) For a 500-litre spray tank, how many tank mixes would be required? (Show working.) 1

4500L ÷ 500L = 9 TANKS

Marks

Question 18 (8 marks)

A farmer is preparing to spray an oat crop for red-legged earth mite. The farmer has previously checked the equipment and read the product label.

During the spraying operation the farmer notices that some of the nozzles on the boom spray are blocked. This could be caused by a number of things.

(a) State TWO essential safety steps the farmer should follow before trying to remedy the problem of the blocked nozzles. 2

Turn off the tractor or spray equipment. Be wearing the correct Personal Protective Equipment. Shut off the flow of the chemical. Make sure he knows the essential information from the MSDS sheet.

(b) Identify ONE possible reason why the nozzle may have blocked, and describe a possible remedy for this situation. 2

- Nozzle blocked with dirt - unfiltered water used (filter)
- Spray not mixed properly - fully dissolve and agitate chemical
- Spray not cleaned out after its last use - rinse with water before adding chemical to the vat
- replace all nozzles before spraying

Question 18 continues on page 14

Question 18 (continued)

Marks

(c) Before lunch the farmer returns to the chemical store to mix a new batch of chemicals. While performing this operation some chemicals spill onto the farmer's clothing. **1**

What should be done to prevent this happening again?

Wear PPE, Apron, gloves. Install a hand operated pump on the chemical container.

(d) The farmer's employee becomes alarmed when the farmer does not come in for lunch. The employee walks over to the chemical store and finds that the farmer has collapsed in the chemical store. **3**

Describe and justify an emergency action plan that the employee could follow in this situation.

The employee should assess the risk and ensure they are not putting themselves in danger. Put on appropriate PPE; Notify the authorities; Check for a response from the farmer. follow the Danger, Response, Airways, Breathing and Circulation steps. Remove the farmer from the danger and administer first Aid.

End of Question 18

Marks

Question 19 (5 marks)

A farmhand is returning from town in the farm utility. The utility swerves to miss a kangaroo. A twenty-litre agricultural chemical drum falls off the utility and splits, spilling chemical on the road.

(a) Name ONE authority that the farmhand should notify. **1**

Environmental Protection Agency; Local Police/fire brigade/SES

(b) List TWO pieces of information about the chemical the farmhand should communicate to the authority, and explain the importance of each one.

(i) • Name of the chemical and active ingredient **2**

• Hazzard level of the chemical or toxicity to measure the urgency, level of reaction required, equipment needed

(ii) How much has spilt and what it has spilt onto **2**
so they can gauge the extent of manpower and equipment they will need to contain the spill and then mop it up.

Question 20 (4 marks)

Marks

List TWO documents that you should complete prior to commencing employment in the primary industry sector, and state the purpose of each one.

Document 1: Tax file declaration — 2

Your tax file number and details on how tax is to be collected or payed by your employer

Document 2: Superannuation fund — 2

Employees are entitled to compulsory superannuation payments by employers, so you need to know the details of your fund, its name, address, phone etc.

Marks

Question 21 (5 marks)

You have carried out a risk assessment for your farm. One of the hazards you have identified is a low overhead power line near a grain silo.

(a) Identify the risk created by this hazard. **1**

- Grain auger hitting the power line causing electrocution
- If hit could cause sparks, explosion, damage to equipment

(b) Identify a control measure for this hazard. **1**

- Put power underground • Shift the silo • Warning signs
- Insulate power lines • Install extra pole to lift the wires

(c) Justify the use of this control measure. **3**

- eliminate the risk by putting the power lines underground or an extra pole to raise their height.
- Warning signs, a ball in the middle of the lines or insulate the wires to improve awarness and protect machinery
- Move the silo to another part of the farm so that machinery /augers etc dont need to go under the wires.

Question 22 Guide answer
Situation A
To organize a rodeo in the local area to raise money for charity I would communicate by: Radio, posters/billboards, TV commercials.
Posters and Billboards
I would put up posters and billboards with information about the rodeo such as date, time, main event, charity raising money for, location, cost of entry. This would be done so they would know where it was, when, why and how much money to bring. The main attraction would be highlighted to try and get more people to come, and posters would further attract people.
Radio
Radio could be used to gain maximum exposure. I would make sure the advertisement indicated the date, cause and start time, as well as entry cost.
TV Commercials
I would use Prime viewing time to gain maximum audience, once again stating time, cause, main attraction, date.
Situation B
A fire is burning toward the workplace. You would have to inform the supervisor, Fire Brigade and fellow employees. This could be done by using
Telephone, 2 way Radio, and speaking face to face.
Telephone
Use the phone to call the fire brigade, telling them the fire location, best ways to access the fire grounds, windspeed and if any property or life was in danger.
The phone would be used because it is fast, and can convey accurate information need for the brigade to respond.This would tell them how many members to take, and who to alert and or evacuate.
I would also ring neighbours so they could take precautions as well.
2 Way Radio
If the supervisor was away from the homestrad the best contact method would be 2 way radio as this is a commonly used communication method on farms. I would give him the same information I gave the brigade, as well as whether any livestock or equipment was in danger, and how many people were in the workplace. I would then listen to any further instructions he made.
Speaking to other employees:
I would once again give the same information and seek advice as to what we should do, and allocate roles to each person and form teams to organize the correct response or evacuate if needed.

Member 03	Member 04	Christian Name	Surname	School	E-Mail
TRUE	TRUE	Ronald	Anson	Griffith High School	
TRUE	TRUE	Don	Bartholomew		
TRUE	TRUE	Ian	Bishop	The Scots School Albury	ianbishop@myaccess.com.au
TRUE	TRUE	Andy	Brooker	Corrimal High School	
TRUE	TRUE	Lisle	Brown	James Ruse Ag. High School	lbrown@jamesruse.nsw.edu.au
TRUE	TRUE	Rowan	Chandler	Uralla Central School	
TRUE	TRUE	Andrew	Cosby		
TRUE	TRUE	Elena	Dagher	Bossley Park High School	elenadagher@optusnet.com.au
TRUE	FALSE	Garry	Dew	Coffs Harbour High School	
TRUE	TRUE	Greg	Fulljames	Yanco Ag High School	
TRUE	TRUE	Neil	Griffith	Irrawang High School	jgriffith58@hotmail.com
TRUE	TRUE	Stuart	Grimmett	Woodenbong Central School	
TRUE	TRUE	Graeme	Harris	Farrer Ag High School	panuara@tpg.com.au
TRUE	TRUE	Bill	Haszard	Mount View High School	
TRUE	TRUE	Karen	Heap	Muirfield Tech High School	
TRUE	FALSE	Stuart	Hemmings	Peel THS	STUHEM@TPG.COM.AU
TRUE	FALSE	Brigitte	Herrmann	Plumpton High School	
TRUE	TRUE	Phil	Hurst	Hawkesbury High School	philhurs@bigpond.com.au
TRUE	TRUE	Grant	Jackson	Gosford High School	jackoburgh@hotmail.com
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TRUE	TRUE	Mal	Jurgs	Meningie Area School	
TRUE	TRUE	Joan	Keiger	Karabar High School	joan_keig@webone.com.au
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TRUE	FALSE	Bruce	Manktelow	Scone High School	
TRUE	FALSE	Diana	Martin	Tooleybuc Central School	skipnet@bigpond.com
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TRUE	FALSE	Melinda	McColl	Delroy High School	
TRUE	TRUE	Ross	McGregor	Hurlstone Ag. High School	
TRUE	FALSE	Jaqueline	McIntosh	Crookwell High School	mcintj@yahoo.com
TRUE	TRUE	Owen	McLaughlan	Canowindra High School	odmac@ozemail.com.au
TRUE	FALSE	Allan	McMillan	Wagga Wagga High School	
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TRUE	FALSE	Matthew	Passmore	Red Bend Catholic College	
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TRUE	FALSE	Ian	Richardson	Coffs Harbour Christian School	ianricho@hotmail.com
TRUE	TRUE	Phillip	Roberts	Coomandook Area School	
TRUE	TRUE	Norm	Robinson		
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TRUE	TRUE	Trevor	Sewell		sewelltj@tudogs.net.au
TRUE	TRUE	Paul	Smith	Cowra High School	cowra-h.school@det.nsw.edu.au
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TRUE	FALSE	Ian	Taylor	McCarthy Catholic Snr High	
TRUE	TRUE	Norm	Thomas		
TRUE	FALSE	Stephen	Tolputt	Erskine Park High School	sjtolputt@hotmail.com

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03 04

TRUE	FALSE	Karen	Tucker	Lisarow High School	
TRUE	FALSE	Michael	Wall	Hurlstone Ag. High School	
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TRUE	TRUE	Doug	White	Manilla Central School	
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TRUE	FALSE	The Teacher of Agriculture		Macquarie Fields High School	
TRUE	TRUE	The Editor		AEAWA Newsletter	
TRUE	FALSE	Teacher of Agriculture		Marist Sisters Woolwich	
TRUE	FALSE	Teacher of Agriculture		Taree High School	
TRUE	FALSE	Teacher of Agriculture		Coolah Central	
TRUE	FALSE	Teacher of Agriculture		Northlakes High School	
TRUE	FALSE	Teacher of Agriculture		Castle Hill High School	
TRUE	FALSE	Teacher of Agriculture		Albion Park High School	
TRUE	FALSE	Teacher of Agriculture		St Joseph's Glen Innes	
TRUE	FALSE	Teacher of Agriculture		St Mary's War Mem School	
TRUE	FALSE	Teacher of Agriculture		The Rock Central School	
TRUE	FALSE	Teacher of Agriculture		Cambridge Park High	
TRUE	FALSE	Teacher of Agriculture		Quirindi High School	
TRUE	FALSE	Teacher of Agriculture		Tullamore Central	
TRUE	FALSE	Teacher of Agriculture		Lightning Ridge Central	
TRUE	FALSE	Teacher of Agriculture		Tamworth High School	
TRUE	FALSE	Teacher of Agriculture		Lakes Anglican Grammar	
TRUE	FALSE	Teacher of Agriculture		Arthur Phillip High School	
TRUE	FALSE	Teacher of Agriculture		Lindisfarne Anglican School	
TRUE	FALSE	Teacher of Agriculture		Mulwaree High School	
TRUE	FALSE	Teacher of Agriculture		Bulahdelah Central School	
TRUE	FALSE	Teacher of Agriculture		Dunheved High School	
TRUE	FALSE	Teacher of Agriculture		Orange Christian School	ocs@netwit.net.au
TRUE	FALSE	Teacher of Agriculture		Junee High School	
TRUE	FALSE	Teacher of Agriculture		Cootamundra High School	
TRUE	FALSE	Teacher of Agriculture		Wee Waa High School	
TRUE	FALSE	Teacher of Agriculture		Ariah Park Central School	
TRUE	FALSE	Teacher of Agriculture		Oberon High School	
TRUE	FALSE	Teacher of Agriculture		Asquith Girls High School	

Member
03 04

TRUE	FALSE	Teacher of Agriculture		McCarthy Catholic Sn Tamworth	
TRUE	FALSE	Teacher of Agriculture		Holy Cross College	
TRUE	FALSE	Teacher of Agriculture		St Joseph's Catholic High	
TRUE	FALSE	Sybil	Adams	Trangie Central School	
TRUE	FALSE	Joseph	Akonda	St John's Park High School	stjohnspk-h.school@det.nsw.edu.au
TRUE	FALSE	Helen	Allen	Rutherford High School	
TRUE	FALSE	Mandy	Allen	Pymble Ladies College	
TRUE	FALSE	Wayne	Anderson	Westport Tech High School	
TRUE	FALSE	G	Bamford	Barellan Central School	
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TRUE	FALSE	Susan	Berkely	Emmaus Catholic College	
TRUE	FALSE	Craig	Bourne	Singleton High School	
TRUE	FALSE	Tim	Bradley	Eden Marine Tech.High School	
TRUE	FALSE	Neil	Brown	Girrakool SSP	
TRUE	TRUE	Ron	Bryant	Mullumbimby High School	bryant_ron@yahoo.com
TRUE	FALSE	Rick	Buckley	Trinity Catholic College	
TRUE	FALSE	Anthony	Buckley	Raymond Terrace High School	
TRUE	FALSE	Dave	Buckley	Elderslie High School	
TRUE	FALSE	Linda	Buttsworth	Jamison High School	
TRUE	FALSE	Wayne	Carey	Boorowa Central	
TRUE	FALSE	Dale	Chadwick	Gundagai High School	dchadders@ozemail.com.au
TRUE	FALSE	Sandra	Chamberlain	Ginninderra District High School	
TRUE	FALSE	Anne	Clark	James Sheahan Catholic High	
TRUE	FALSE	Geoffrey	Clerke	Caroline Chisholm Catholic High	
TRUE	FALSE	Charles	Coclough	The King's School	
TRUE	FALSE	Bob	Cooke	Kandos High School	
TRUE	FALSE	Alan	Cooke	Ulladulla High School	
TRUE	FALSE	Alan	Cooper	Ungarie Central School	
TRUE	FALSE	Ian	Crompton	Duval High School	
TRUE	FALSE	John	Dalglish	St Patrick's College	
TRUE	FALSE	Heather	Davies	Pymble Ladies College	
TRUE	FALSE	Wal	Davies	Nimbin Central School	
TRUE	FALSE	Shannen	Dean	The King's School	
TRUE	FALSE	Gerard	Delany	St Columba's Catholic	
TRUE	FALSE	Alee	Den	Dubbo High School	
TRUE	FALSE	George	di Scala	Bidwill High School	
TRUE	FALSE	Mark	Duncan	Wade High School	
TRUE	FALSE	Warren	Eames	Umina High School	
TRUE	FALSE	Bob	Egerton	The King's School	
TRUE	FALSE	Ross	Elliot	Eden Marine Tech.High School	
TRUE	FALSE	Nicole	Evans	Nagle College	
TRUE	FALSE	Doug	Ferris	Toormina High School	
TRUE	FALSE	Daryl	Finch	Billabong High School	
TRUE	FALSE	Jemima	Finlayson	Moss Vale High School	
TRUE	FALSE	Cathy	Foran	Gilgandra High School	
TRUE	FALSE	Ron	Ford	Corpus Christi Snr High	
TRUE	FALSE	Ian	Fuller	Terra Sancta College	
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TRUE		Susan	Kydd	Beach School	
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FALSE	FALSE	Michael	Ball	Armidale High School	
FALSE	FALSE	Norm	Balzer	Kadina High School	
FALSE	FALSE	Chis	Barbary	Richmond River High School	
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FALSE	FALSE	David	Blowes	Yeoval Central	
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FALSE	FALSE	Alison	Dahlenburg	St Francis De Sales School	
FALSE	FALSE	Karen	Damic	Bathurst High School	
FALSE	FALSE	Mark	Dan	Delroy High School	
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FALSE	FALSE	Louise	Fletcher	Freshwater High School	
FALSE	FALSE	Rob	Forsberg	Narara Valley High School	
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FALSE	FALSE	Adrian	Harrison	St Gregory's College	harro@idx.com.au
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FALSE	FALSE	Ian	Heffernan	Dapto High School	
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FALSE	FALSE	Ann-Maree	Holmes	Menai High School	
FALSE	FALSE	Peter	Hood	Narrabri High School	
FALSE	FALSE	Sue	Hope	Goulburn High School	
FALSE	FALSE	Ian	Howchin	Dorrigo High School	
FALSE	FALSE	Jon	Irvine	Temora High School	
FALSE	FALSE	Stewart	Irwin	Inverell High School	
FALSE	FALSE	Geoff	Jackson	Dubbo Christian School	geoff.jackson@dubbocs.com.au
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FALSE	FALSE	Helen	Kleinbergs	Molong Central School	
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FALSE	fALSE	jOHN	Laidlaw	Mudgee High School	
FALSE	FALSE	John	Lee	Glen Innes High School	
FALSE	FALSE	Tony	Lock	Kempsey High School	
FALSE	FALSE	Judy	Lockhart	Moss Vale High School	
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FALSE	FALSE	Andrew	Owen	Wellington Christian School	
FALSE	FALSE	Paul	Owens	Port MacQuarie High School	
FALSE	FALSE	Graham	Pagden	Glen Innes High School	
FALSE	FALSE	Lindy	Piper	Dunedoo Central School	
FALSE	FALSE	Neil	Puddey	Woolgoolga High School	puddey@bigpond.com
FALSE	FALSE	Maree	Quirk	Lake Cargelligo Central	
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FALSE	FALSE	Geoff	Spence	Umina High School	
FALSE	FALSE	Kerrie	Steer	Northholm Grammar School	
FALSE	FALSE	Rosie	Stern	OTEN-LMP	
FALSE	FALSE	Maxwell	Stewart	Bombala High School	maxwells@acr.net.au
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FALSE	FALSE	Grant	Taylor	Muswellbrook High School	
FALSE	FALSE	Brian	Thomas	Kooringal High School	
FALSE	FALSE	Cheryl	Thornthwaite	Gaiston High School	
FALSE	FALSE	Brian	Trench	Camden Park Environment Education Centre	
FALSE	FALSE	Stephen	Trickett	Billabong High School	

Member

03 04

FALSE	FALSE	Paul	Udy	Galston High School	
FALSE	FALSE	Jenny	Umbers	Trundle Central School	
FALSE	FALSE	Ashley	Unger	Wyong Tech High School	
FALSE	FALSE	Virginia	van Gend	St Stanislaus College	
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FALSE	FALSE	Daryl	Williams	Temora High School	
FALSE	FALSE	Deb	York	Barraba Central School	
FALSE	FALSE	Teacher of Agriculture		St Paul's Grammar School	
FALSE	FALSE	Andrew	Abercrombie	Braidwood Central School	
FALSE	FALSE	Libby	Affleck	Hennessy Catholic College	hennessy.young@schools.cangoul.catholic.edu.au
FALSE	FALSE	Peter	Alcorn	Shoalhaven High School	
FALSE	FALSE	Ian	Anderson	Narromine High School	
FALSE	FALSE	Bob	Anderson	Knox Grammar School	andersonb@knox.nsw.edu.au
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FALSE	FALSE	Jeff	Ashenden	Catherine McAuley College	jashende@lism.catholic.edu.au
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FALSE	FALSE	Karlene	Bailey	Inverell High School	baileylittle@yahoo.com.au
FALSE	FALSE	S	Baillie	Moree Technology High School	
FALSE	FALSE	A	Baker	Macksville High School	macksville-h.school@det.nsw.edu.au
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FALSE	FALSE	Greg	Boase	Our Lady of the Rosary School	
FALSE	FALSE	Mark	Boehme	Batemans Bay High School	
FALSE	FALSE	Allan	Boland	Dubbo DES	
FALSE	FALSE	Philip	Booker	Chatham High School	pbooker@chatham.nsw.edu.au
FALSE	FALSE	Saxon	Bowles	Oakhill College	saxon@oakhill.nsw.edu.au
FALSE	FALSE	Paul	Bray	Ardlethan Central School	buzzbray@yahoo.com
FALSE	FALSE	Peter	Bray	Dubbo DES	
FALSE	FALSE	Tara	Brewer	St Paul's College	
FALSE	FALSE	Lisa	Bright	St Joseph's High School	
FALSE	FALSE	Kerry	Brookes	Narrandera High School	
FALSE	FALSE	Susie	Brown	Wellington High School	peppertree7@bigpond.com
FALSE	FALSE	Marie	Bryant	Kingscliffe High School	
FALSE	FALSE	Tony	Bundock	Alstonville High School	
FALSE	FALSE	Peter	Burns	Ambarvale High School	
FALSE	FALSE	Roger	Burrows	The Scots School Albury	
FALSE	FALSE	Dennis	Byrne	Alstonville High School	
FALSE	FALSE	Charles	Cassels	Richmond High School	
FALSE	FALSE	Anne	Christenson	Chiffley College/Mt Druitt Campus	annepytte@aol.com
FALSE	FALSE	Terry	Clarke	Bellingen High School	
FALSE	FALSE	Gary	Davis	Macquarie Fields High School	
FALSE	FALSE	Geoff	Densley	Kyogle High School	
FALSE	FALSE	Mark	Dixon	Albury High School	mdixon@hotmail.com

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FALSE	FALSE	Rusell	Firth	Vincentia High School	firth@shoalhaven.net.au
FALSE	FALSE	John	Fitzhenry	Byron Bay High School	
FALSE	FALSE	Brian	Friend	Wauchope High School	
FALSE	FALSE	Geoff	Frowd	Tumut High School	
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FALSE	FALSE	Don	Garling	Cowra High School	
FALSE	FALSE	Ross	Gawthorne	St Columba's Catholic	
FALSE	FALSE	John	Gestier	Kyogle High School	
FALSE	FALSE	Peter	Giblin	Byron Bay High School	
FALSE	FALSE	Tony	Goodwin	Cessnock High School	
FALSE	FALSE	Judy	Gordon	Tumut High School	
FALSE	FALSE	Allan	Grace	Melville High School	
FALSE	FALSE	Simon	Graham	Kempsey High School	
FALSE	FALSE	Richard	Grant	James Ruse Ag. High School	agriculture@jamesruse.nsw.edu.au
FALSE	FALSE	Ugo	Grassano	Lisarow High School	
FALSE	FALSE	Susanna	Greig	Mendooran Central School	
FALSE	FALSE	Leigh	Gribble	Berkley Vale Community High.School.	canus3@hotmail.com
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FALSE	FALSE	Ross	Hall	The King's School	
FALSE	FALSE	David	Hall	Singleton High School	
FALSE	FALSE	Michael	Halliger	Cobar High School	
FALSE	FALSE	Andrew	Hamilton	Oxley High School	
FALSE	FALSE	Jeremy	Harris	Tweed River High School	
FALSE	FALSE	Matthew	Hassenpore	St Clair High School	
FALSE	FALSE	John	Hawkins	Colo High School	
FALSE	FALSE	Iain	Henderson	Coomealla High School	
FALSE	FALSE	Tanya	Henry	Yanco Ag High School	
FALSE	FALSE	Alan	Hickey	Oak Flats High School	
FALSE	FALSE	Mark	Hickson	Camden Haven High	
FALSE	FALSE	Stuart	Hill	Pennant Hills High School	
FALSE	FALSE	Nich	Hiller	Coffs Harbour High School	
FALSE	FALSE	Jayne	Hoffman	Alstonville High School	
FALSE	FALSE	Kerry	Hollands	Dubbo High School	
FALSE	FALSE	Scott	Hollingsworth	Coffs Harbour High School	
FALSE	FALSE	P	Holzberger	John Paul College	
FALSE	FALSE	Kim	Hopkins	Dubbo DES	
FALSE	FALSE	Wayne	Hoy	Lyneham High School	
FALSE	FALSE	Janet	Hughes	Coonamble High School	
FALSE	FALSE	Peter	Humphries	Deniliquin High School	
FALSE	FALSE	Alastair	Hunt	Canberra Grammar School	alastair.hunt@cgs.act.edu.au
FALSE	FALSE	John	Hurst	Morisset High School	
FALSE	FALSE	Ross	Irvin	Lake Illawarra High School	
FALSE	FALSE	Jennifer	Jackson	Hurlstone Ag. High School	
FALSE	FALSE	Steven	Jawerth	Bega Valley Christian College	stevenj@bvcc.nsw.edu.au
FALSE	FALSE	Noelene	Johnson	Warren Central School	
FALSE	FALSE	Janette	Johnson	Gosford High School	
FALSE	FALSE	David	Johnson	James Fallon High School.	
FALSE	FALSE	Peter	Jones	Collarenebri Central School	
FALSE	FALSE	Terri	Joy	Dubbo South High	dshs@dshs.nsw.edu.au

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FALSE	FALSE	Sharon	Kenaly	Hurlstone Ag. High School	
FALSE	FALSE	Barry	Kerr	Duval High School	
FALSE	FALSE	John	Killeen	Girraween High School	jtkilleen@idx.com.au
FALSE	FALSE	Anna	Kinnear	Broken Hill High School	
FALSE	FALSE	Jo	Kitchiner	Pymble Ladies College	
FALSE	FALSE	Danielle	Krix	Bede Polding College	
FALSE	FALSE	Keith	Larsson	Bonalbo Central School	pinehill@nor.com.au
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FALSE	FALSE	Lee	Leonardo	Northmead High School	
FALSE	FALSE	Geoffrey	Lindsay	Parkes High School	
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FALSE	FALSE	Peter	Longmire	Corowa High School	
FALSE	FALSE	Brendan	Lowe	Forster High School	
FALSE	FALSE	Tim	Lukins	Condobolin High School	nhulunby@westserv.net.au
FALSE	FALSE	Erica	Lyne	Toormina High School	
FALSE	FALSE	Philip	Lyne	Kelso High School	
FALSE	FALSE	Francis	Mackay	Caroline Chisholm Catholic High	
FALSE	FALSE	Aravind	Maharaj	St John's Park High School	
FALSE	FALSE	Lyndal	Maloney	Girraween High School	
FALSE	FALSE	Matthew	Manny	Dubbo DES	
FALSE	FALSE	Ian	Marriott	Casino High School	
FALSE	FALSE	Diane	Mayton	Nagle College	
FALSE	FALSE	Carol	McCaffery	Ambarvale High School	
FALSE	FALSE	Lisa	McCallum	Condobolin High School	
FALSE	FALSE	Johanna	McCarthy	Hillston Central School	
FALSE	FALSE	Jacquiline	McCarthy	Marian College	
FALSE	FALSE	Lloyd	McClymont	Grafton High School	grafton-h.school@det.nsw.edu.au
FALSE	FALSE	Ray	McCord	Leumeah Tech High School	
FALSE	FALSE	Lorna	McGilchrist	New England Girls School	lornacol_mcg@yahoo.com.au
FALSE	FALSE	Sue	McGoldrick	St Lawrence's Central School	
FALSE	FALSE	Terry	McGoldrick	Coonabarabran High School	
FALSE	FALSE	Mark	McGowan	Bingara Central School	
FALSE	FALSE	Simone	McNeil	Farrer Ag High School	srmcneill@hotmail.com
FALSE	FALSE	Ewan	McPhee	Murray High School	emcphee2start.com.au
FALSE	FALSE	Geoff	Metcalf	Tullibigeal Central School	
FALSE	FALSE	Felicity	Michael	Deniliquin High School	
FALSE	FALSE	Margaret	Miles	Coolamon Central School	
FALSE	FALSE	Alan	Mitchell	Warialda High School	dandaloo@northnet.com.au
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FALSE	FALSE	Timothy	Montgomery	Nowra High School	
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FALSE	FALSE	Warwick	Moore	NSW Agriculture	
FALSE	FALSE	David	Morgan	Christadelphin Heritage College	maddogmorgie@bigpond.com.au
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FALSE	FALSE	Bal	Mudliar	Elizabeth Macarthur High	
FALSE	FALSE	Ken	Muller	Maclean High School	
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FALSE	FALSE	Don	Mulligan	Caroline Chisholm Catholic High	

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FALSE	FALSE	Richard	Murney	Red Bend Catholic College	
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FALSE	FALSE	Danielle	Reeve	Parkes High School	
FALSE	FALSE	Robyn	Roberts	Duval High School	
FALSE	FALSE	Aaron	Robins	Coonamble High School	
FALSE	FALSE	Brad	Robinson	Moree Technology High School	
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FALSE	FALSE	Liz	Ruis	Windsor High School	
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FALSE	FALSE	Craig	Ruth	Kincumber High School	
FALSE	FALSE	Peter	Ryan	Camden High School	
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FALSE	FALSE	Robert	Schippers	Hurlstone Ag. High School	
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FALSE	FALSE	Maurice	Woodman	Murray High School	kmwoodies@bigpond.com
FALSE	FALSE	Louise	Woods	Forbes High School	
FALSE	FALSE	Enid	Woodside	Wade High School	
FALSE	FALSE	Anne	Young	Rutherford High School	
FALSE	FALSE	V	Zahra	Doonside Technology High	
FALSE	FALSE			Catholic High School	
FALSE	FALSE		The Agriculture Teacher	Wyong Tech High School	
FALSE	FALSE	Liz	Barker	Barham High School	
FALSE	FALSE	Robert	Cain	Hay War Memorial High	
FALSE	FALSE	Cameron	Dustine	TLSC- The Entrance Campus	sungold@acay.com.au
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Membership Form 2003- 2004

Name -
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.....

School - .....

Address. .....

.....

Address for posting BAAT (if different from School Address)

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School Phone - .....

Fax - .....

Home Phone (optional) - .....

E-mail - .....

Membership Fees –

Biennually $120 ☐ (Students $60) ☐

Annual $60 ☐ (students $30) ☐

PLEASE NOTE - whilst we are registered for an ABN number we are not registered to collect GST.

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Please assist by indicating names & emails of other agriculture teachers at your school.