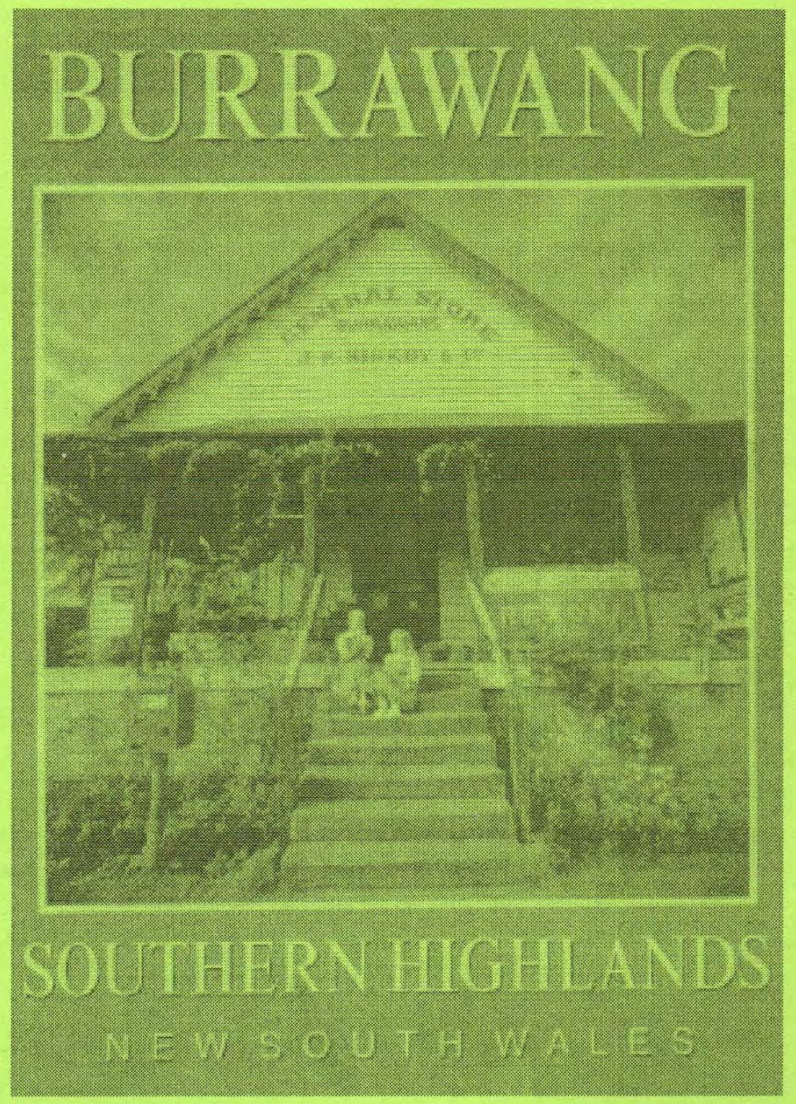
NSW Association of Agriculture Teachers Inc.

Bulletin of the NSW Association of Agriculture Teachers

B.A.A.T.



inside....

Executive Profiles
Combined Meeting Minutes
Chevalier/Moss Vale High School Profiles
Practical Activities

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NSW Agriculture
University of Western Sydney
Hawkesbury

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EDITORIAL

Welcome to the second edition of BAAT for 1997 ....

We wish to thank those members who put in the time and effort to return the evaluation sheet from BAAT #7. We have taken notice of what you want from your bulletin. In brief, the results from the survey indicate that alth ugh members were more than happy with most articles, the areas requested for greatest emphasis were student activities, lessons, worksheets and reports on what is happening at schools across the State. Additionally there was a resounding NO to BAAT on disc.

It is because of this feedback that we want Edition #8 of BAAT (Mid Term IV) to have a greater number of worksheets etc., that would be beneficial to all members. For this to occur we need YOUR input by sending in any activities that you have found successful and are willing to share. (It may save you the inconvenience of re-typing it - we will do it for nothing!) We would also love to have some classifieds - these are free to **members**! The network of Coordinators throughout the State has been arranged. These will be published in the next edition. If you have input into any area of Agriculture in schools in NSW please do not hesitate to contact us direct or via your network Coordinator.

During May at Moss Vale High School, there was a unique meeting of the State and Sydney Branch executives of the NSWAAT as well as Board of Studies representatives and members such as Peter Jones, (who has many crucial roles in our subject area). The aim of this unique meeting was to generate a unified and coordinated approach towards many issues facing Agriculture in all schools in the State. The minutes of the meeting and some feedback relating to period-allowance, country HSC marking and the Agriculture Advisory Group are included in this edition. At this meeting, these people were asked to fill out a profile on themselves, outlining their roles, thoughts etc and we hope that these contacts will be very beneficial ....

In conclusion,

* note the new "e-mail" address of the Secretary for our association -

aatsectj@acr.net.au

* for those who have **NOT** yet paid their subscriptions this will be the last BAAT that you will receive unless payment is made to Phil Armour. If in doubt, please contact Phil (details on contents page).

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PRESIDENT'S REPORT



Welcome to the second issue of BAAT for 1997. At the moment we have 150 paid-up members. Our Agriculture Association is important to all Agriculture teachers throughout the State. It is a major form of communication between members of the Association. BAAT lets you know what is happening at a State and National level. BAAT editor Craig O'Brien is working extremely hard, along with his enthusiastic committee, to make BAAT relevant to all readers. We appreciate the incoming feedback about the magazine. If you know of any teacher who has forgotten to pay their membership dues, please give them a gentle reminder. Agriculture teachers throughout the State are dedicated and hardworking (particularly at local agricultural shows etc.). I would especially like to congratulate all the members of the Hawkesbury Agriculture Camp Committee who organised and ran a three day camp at the University of Western Sydney Hawkesbury Campus. Agriculture camps would not happen if it was not for the dedication of a group of teachers who spend many hours organising and supervising the camp in their own time.

The National Association has expressed concern at the shortage of Agriculture teachers in Australia. There is no specialist training in Agriculture in Universities in Tasmania, South Australia, or Western Australia. This also coincides with Sydney University deciding not to offer any TAS subjects for future student intake. Obviously, this holds grave concerns for Agriculture as a distinct subject in the curriculum. The National Association has written to State and Shadow Ministers expressing concern regarding the shortage of Agriculture teachers in each State.

Networking

The only method of communication with Agriculture teachers is BAAT. The Association wishes to improve the communication line between teachers, districts and State Executive. By this stage, a number of Agriculture teachers have been invited to become *network coordinators* in each district. In some instances, two network coordinators have been appointed in each district due to the large number of schools. All members should have been contacted by their network coordinator. Any change of address, telephone or fax number needs to be faxed to Sue Hope as soon as possible so that the database can be updated. Network coordinators will be published in the 3rd edition of BAAT after alterations have been made. It is envisaged that network coordinators will receive and fax information that is important to members. I hope networking provides an opportunity for groups to meet and discuss concerns, strategies, and future directions of Agriculture in their district.

New Agriculture Syllabus

The new Agriculture Syllabus will be out in Term 4. I believe the new syllabus will be accompanied with support materials and a video. Congratulations to Jenni Wilkins and Sally Bannerman who have contributed so much time and effort to put the new syllabus together.

Design and Technology

Information Technology is a planned new senior module in Design and Technology.

Credit Transfer

A letter has been sent by the Association to the Credit Transfer Committee regarding credit transfer for Preliminary and HSC Agriculture students to TAFE. It is apparent that there are a number of outcomes in the 2/3 Unit Agriculture course which should provide students with some credit points when enrolling at TAFE. At the moment students do not gain any credit points at TAFE if they enrol in rural based subjects.

NSW Education Cooperative

The Association acknowledges the effort the NSW Agricultural Education Cooperative has undertaken in the promotion of agricultural education in NSW. I have written a letter on behalf of the Association indicating our support and willingness to help at functions in the promotion of agricultural education in NSW.

Agenda 97 Safe Schools Program

A letter regarding the training of Agriculture teachers in farm tractor safety and farm chemicals has been forwarded to the Director-General, Minister and District Office. The Association proposes that teachers who are qualified in the National Farm Chemicals User Program and Tractor Safety Program could train other Agriculture teachers (in farm tractor safety and farm chemicals) at a minimal cost to the Department of School Education. Farm safety is an extremely important issue and I hope that the Department gives the proposal consideration.

State Agricultural Advisory Group

Craig O'Brien and Phil Armour along with Phil Hurst and Peter Jones are the Agriculture Association's representatives on the State Agricultural Advisory Group. There have been two meetings so far. All schools would have filled out forms indicating student enrolment in Years 7-12 Agriculture and associated courses. Teachers were also asked to indicate the condition of their farm machinery, especially tractors. The Group will be presenting the report of the survey to **Finance and Properties Branches.**

Special Interest Group

An initiative of the Sydney Branch is the setting up of a *special interest group* in relation to Agriculture within the Teacher's Federation. Areas of concern are class sizes and period allocations for the farm manager.

Survey

Ian Judd, President of the Sydney Branch has set up a data base on schools that teach Agriculture. The data base includes farm size, farm manager's allocation, enterprises and teacher experience. A questionnaire has been sent to you. If you could fill out this form and fax it to Ian, the Association would be most appreciative. We would like to publish the data. This could benefit teachers in schools where they are not given a period allocation for managing the farm. Teachers could use this data regarding period allowances and negotiate a better deal with their Principal in regard to farm manager allocations. Many thanks to Ian Judd for his efforts in constructing the data base.

National Association of Agriculture Educators

Jenni Wilkins, President of NAAE gained funding from Wool International to produce resource material based on the *forward selling of wool* using futures, options, forward contracts and auctions. State Presidents met in Sydney in the holidays to start putting the package together. The package consists of OHTs, teacher notes and student exercises. The package will be suitable for Years 11 and 12 Agriculture students. Hopefully members will receive the Wool International Resource Package in Term 4. Many thanks to Jenni for her efforts in gaining funding from Wool International.

Tenth Biennial National Conference

The Queensland Agriculture Teachers Association is hosting the 1998 National Association of Agriculture Educators Conference on the Sunshine Coast at the Hyatt Regency Coolum from 14-17 January 1998. The conference agenda will consist of key note addresses, interactive workshops and industry visits. A full registration package costs $470 if paid before 10 October 1997. This Conference is an excellent opportunity for Agriculture teachers to meet and discuss ideas with other teachers from Queensland and Interstate.

Sue Hope

A Word from our Gold Sponsor -

COTTON FOUNDATION

COTTON AUSTRALIA

COTTON EDUCATION #1

Cotton Australia's education program is aimed at encouraging young Australians to carefully investigate for themselves all aspects of the critical issues now facing Agriculture in Australia, to demonstrate that decision-making is oftentimes a difficult exercise, and to skill them for involvement in community-based committees and groups.

Here is one aspect of the program:

Youth Challenge Forums, are developed and presented by Melbourne-based Ryebuck Media during May each year and are generally held in Sydney and Brisbane and several large regional centres throughout NSW and Queensland. The day-long Challenges are designed to be applicable across the curriculum and present students with a hypothetical situation on video (in 1997 it was *Are Cotton Farmers Good Water Managers)*, take them through a fun interactive on decision-making before they break up into workshops to devise a solution for the hypothetical. Their solution is then presented through a role-play or dramatisation. The emphasis is on fun, investigation, and making decisions.

Schools are invited to send one teacher and up to 10 students, and Cotton Australia offers reimbursement of replacement teacher and travel costs.

Students who attend the Challenge Forums are then invited to do a further Research Project on the issue presented. The research might be presented in a photo essay, on a video, via a 1000 word essay and so on and the eight outstanding researchers win a two day, all expenses paid trip to the city hosting that year's Cotton Conference or Cross Industry Forum (in 1997 that is Brisbane) where they spend a day and a half sightseeing and half a day working on presentations and then presenting their findings to the Cotton Industry.

To register your interest in attending the 1998 Youth Challenge series call Ryebuck Media on - (03) 95002399.

COTTON AUSTRALIA
INTERACTIVE WEB SITE
WWN farmwide.com./au/nff/cotton/cotton.htm



A WORD FROM THE TREASURER

Thanks to all those members who have renewed their membership and are now receiving BAAT on a regular basis. We have also picked up a good many new or lapsed members via mailouts to schools in the last couple of months.

Unfortunately, there has been a slower response than I had hoped from members renewing their membership from last year and therefore, they will not be receiving this edition of BAAT.

If you know of someone who has yet to renew, please get in touch with them ASAP so that they can continue to receive BAAT, and thus remain both informed and entertained by Craig and his merry scribes.

Currently, membership is short 50% of the total possible and this is not enough to maintain a strong and effective association.

With a little luck and the assistance of the Joint Council of Professional Teachers' Association we will have faxed out a one page questionnaire to all Agricultural schools. This survey covers topics such as period allocations and related data. Ian Judd (President of Sydney Association) and I, will be correlating this information to assist in bargaining for a better deal for those of you without farm allocations and similar support.

I would like to take this opportunity to thank all those teachers who attended the Berry Conference and were so helpful with ensuring that payments and arrangements were efficiently carried out. I hope that you are all making plans for the 1999 Conference in the Central West which is sure to be bigger, better and even more fattening than the 1997 one!

Till next time, best wishes.

Phil Armour

PS I have only been sending receipts to members paying their membershp by personal cheque. If your school needs their receipt, just fax me on (06)2263174 and I will have it in the mail ASAP.



Our feedback indicates that -

You want activities/lessons/experiments that work.

We want to publish them in the next issue.

So *RUSH* them to the Editor - *PLEASE!!!*

Board of Studies

Agriculture Stages 4-5 Syllabus

A Consultative Draft of a new Agriculture Stages 4-5 Syllabus (a revision of the Years 7-10 Agriculture Syllabus) and an Evaluation Survey were sent to all schools offering Agriculture and to peak education and agriculture groups in November 1996. In addition, to further inform the syllabus development process, focus group meetings comprising practising teachers of Agriculture were conducted in Term 4, 1996 and Term 1, 1997 at - *Young, Berry, Corowa, West Wyalong, Armidale, Lismore, James Ruse High School Carlingford* and *Galston.*

A total of 165 teachers attended these meetings.

The responses to the survey and views expressed by teachers at the focus group meetings strongly supported the structure and direction of the syllabus. However, the teachers indicated a need for support in the implementation of certain requirements of the syllabus.

Since that time, the Project Team has developed a Support Document comprising teaching and learning material and collected samples of student work that illustrate and validate the student outcome statements described in the Final Draft of the syllabus. Practising teachers of Agriculture contributed to the development of the Support document by providing some programming ideas, sample units of work and samples of student work. The Board's Aboriginal Curriculum Unit provided material to support the teaching of Aboriginal perspectives in the syllabus.

It is expected that the syllabus package (syllabus and support document) will be available for distribution to schools early in Term 4, 1997 for implementation for Year 7 and Year 9 in 1998.

To complement the Support Document, a short video is currently being produced for distribution to schools later in Term 4. This video shot in five schools (*Colo, Camden, Galston, Hoxton Park* and *Merriwa*) illustrates the achievement of syllabus outcomes at different stages, particularly the achievement of skills-related outcomes.

This new syllabus should provide an exciting context for teaching and learning in Agriculture. We all owe so much to the members of the Project Team, the Syllabus Advisory Committee and those wonderful hard working teachers of Agriculture who participated in program writing days, the collection of student work samples, focus group meetings and the video. Congratulations and heartfelt thanks to Sally Bannerman for her generous and enlightened contribution to the project.

Jenni Wilkins
Senior Curriculum Officer
Office of the Board of Studies NSW
Telephone : (02) 93678165
Fax : (02) 93678476

TENTH BIENNIAL CONFERENCE

NATIONAL ASSOCIATION OF AGRICULTURAL EDUCATORS

Learning through Agriculture

Wednesday 14 - Saturday 17 January 1998
at
Hyatt Regency, Coolum
Sunshine Coast, Queensland

NAAE

Presented by

QATA QUEENSLAND AGRICULTURAL TEACHERS' ASSOCIATION INC.

This conference will address Learning through Agriculture by looking at:

1. **Learning Technologies in the Agricultural classroom;**
2. **Workplace Learning and Professional development for teachers of Agriculture;**
3. **Workplace Learning for students.**
4. **Effective teaching and learning in an Agricultural context.**

REGISTRATION INFORMATION

Please read the following very carefully:

Full Registration Package

This includes admission to all conference sessions, breakfast, lunch, morning and afternoon teas, twin share accommodation, for the three days/nights as well as the conference dinner, bus trip, conference folder, a welcome function and administration costs.

* *Room rate is based on Deluxe room accommodation**

Please note that this package does not include dinners except the main conference dinner. This gives you the opportunity to avail yourself of the many restaurants in close proximity, eg. Noosa, or choose from the restaurants at the resort.

Full registration Package -

BEFORE 10 OCTOBER 1997	$470
AFTER 10 OCTOBER 1997	$520

Other Options

You may choose alternate accommodation and the packages and extras that suit you.



Accommodation

1. **Deluxe Suite** - one bedroom, one bathroom, which is suitable for twin share or couples.

   Sole use - $180 per day
   Two share - $90 per day.
   Families with small children could use this form of accommodation.

2. **President Villa** - two bedrooms/two bathrooms. These are more suitable for families - $270 per day.

Please note: there are only a small number of these rooms available.

These room rates will apply for those wishing to extend their stay before or after the conference, depending on availability.

The above room rates include a "Coolum" breakfast served in the comfort of your Garden room adjacent to your accommodation.

You may select your accommodation separate OR if you do not wish to stay at the resort, add either of the following packages depending on your needs.

Full conference package - $200
(includes morning and afternoon teas, lunch, welcome function, conference folder, bus trip and administration costs.)

Partners' options
Accommodation options as quoted. (Breakfast is included with the room). On a twin share basis, this would be $270 for the three days/nights in a Deluxe room.

Other meals can be arranged or you can attend to these yourself.

Partners are invited to the conference dinner at the rate quoted.

One day package - $70
(includes morning and afternoon tea, lunch and conference folder)

Bus trip - $15 per head

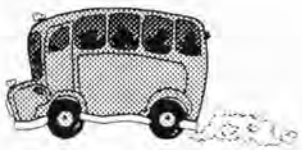
Conference dinner - $45 per head.

THE RESORT

The resort offers a large range of recreational activities such as tennis, golf, beach olympics, rainforest walks, archery etc. as well as a range of children's activities eg. horse riding, bike hire, canoeing, creative arts centre etc. Remember this resort is in close proximity to the famous Coolum beach.

For the partners, there are creative arts, health, beauty salon and nutrition workshops as well as access to shops and tourist attractions in Noosa, Fraser Island, inland ranges etc.

Please note: We have negotiated complimentary admission for adults to the renowned Spa centre which entitles delegates and partners to use the gymnasium, squash courts, lap pool, spa, sauna, luxury changerooms and locker facilities.



Bus trip - $15 per head

TRAVEL

We are pleased to announce **Qantas** has been appointed official airline for the National Association of Agricultural Educators. As a special conference fare has been negotiated for delegates attending, we suggest you contact Qantas Association Sales to avail yourself of this, or any other promotional fares which may be applicable.

A discount of 45% off the full economy airfare excluding taxes at the time of booking has been negotiated for this conference, subject to seat availability in group class. **Please quote your Association Profile Number which is 1278231 and destination and date of conference** when making your reservation. Qantas is a proud supporter of our conference so I urge you to support this airline for you travel.

The Qantas Association Sales Telephone number is: Toll Free 1 800 684 880

CONFERENCE APPLICATION FORM IS ENCLOSED IN THIS PACKAGE (BAAT #8)

A Word from our Silver Sponsor

COLLEGE AND UNIVERSITY LINKED

The well developed collaboration and cooperation between NSW Agriculture and Charles Sturt University have been extended with the formal signing of an agreement which will see affiliation of Murrumbidgee College of Agriculture with Charles Sturt University.

This affiliation provides students with a wide choice of interrelated agricultural education opportunities, from practical, College-based farm skills training to full degree and postgraduate studies.

"The partnership allows students and industry to build on the vocational education and training programs at the college and link it to complementary university courses," Director-General of NSW Agriculture Dr Kevin Sheridan said.

"It reinforces the extensive rural networks of a strong rural university and our rural based department, both of which have over 100 years involvement in agricultural education.

Charles Sturt University's Vice-Chancellor Professor Cliff Blake added: "As well as the enhanced educational opportunities offered by this partnership, joint graduate and postgraduate research activities in agricultural production and agri-business will be further promoted."

"Staff from both organisations will also have the opportunity to widen their roles in research, education and training."

"With the recent announcement of Charles Sturt University being the University of the year, prospective students have a good opportunity to apply to both Murrumbidgee College of Agriculture and Charles Sturt University, so that they can benefit from this new and important agricultural education alliance," Professor Blake suggested.

Located at Yanco and run by NSW Agriculture, Murrumbidgee College of Agriculture, offers first hand experiences in 'down-to-earth' courses in food and fibre production. Entry into the College is open to Years 10, 11 and 12 school leavers as well as mature aged students.

Full time students complete a one year Certificate III in Agriculture course, with the opportunity to complete a further year studying a Certificate IV course specialising in either livestock and crop production, irrigation farming, production horticulture or pastoral property management.

Graduates of the College can be found working rural properties, in stock and station agencies and rural service industries. Those who wish to further their studies have the opportunity to gain special entry into the Science and Agricultural Faculty at Charles Sturt University.

People interested in making late applications for enrolment should ring the College on (02) 69512700 or the University on (02) 69332864.

AGRICULTURE offers exciting opportunities

NSW Agriculture's Colleges offer a range of courses in the food and fibre industries

- Full time residential courses
- Part time courses (traineeships and apprenticeships)
- Home study courses
- Short courses

New Courses

- **National Diploma and Advanced Diploma in Rural Business Management**
- **Viticulture and Food Processing Certificates**
- **Certificate in Rural Skills (Aboriginal Communities)**
- **Landcare Certificate**

Agricultural College courses are for:

- School leavers
- Land holders
- People working on farms
- New entrants to agriculture
- Aboriginal communities
- Food and fibre producers

NSW Agriculture



FOR FURTHER INFORMATION

Murrumbidgee College of Agriculture
Yanco NSW 2703
Ph (02) 69512700

C B Alexander Agricultural College
Tocal,
Paterson NSW 2421
Ph 1800 025520



New South Wales



Schools Animal Care and Ethics Committee

The Schools Animal Care and Ethics committee is at present reviewing the **Animals in Schools - *Animal Welfare Guidelines for Teachers***. We have expanded the categories which the approved activities are divided into. This will line schools up better with TAFE and cover more activities including those required in the Rural Industries Content Endorsed Course.

Please read the pages showing the proposed changes to the **Animals in Schools - *Animal Welfare Guidelines for Teachers*** and then fill in the enclosed survey and fax ASAP.

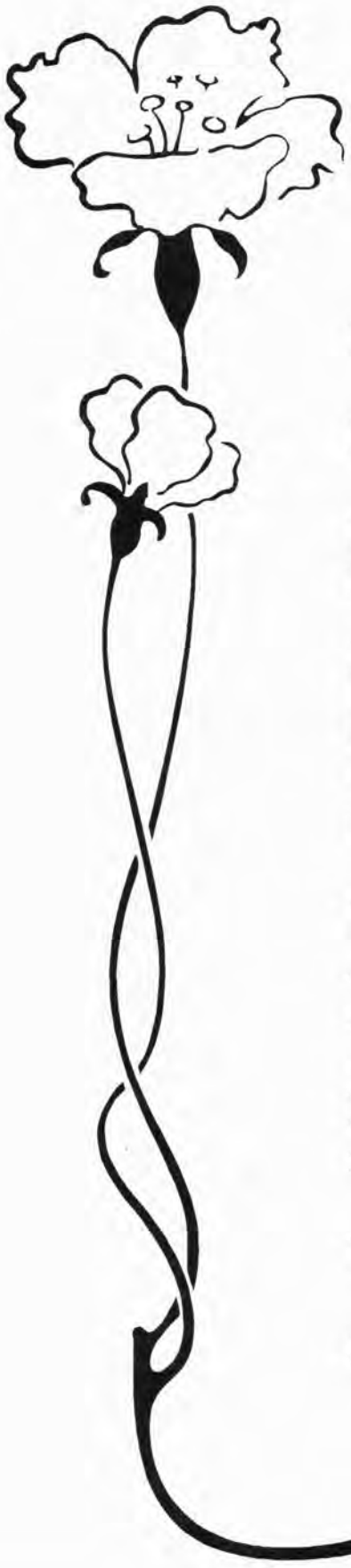
Animals in Schools Guidelines
Proposed Categories of Activities

Category	Animal Impact	Teacher/Expert	Student	Justification for activity
1	Nil to minimal impact		Appropriate to all students	
2	Low impact Condition or trained for the activity	Appropriate skills and knowledge	Background and level of maturity taken into account and suitable instructions given before activity	Appropriate
3	Moderate impact Limited invasion or risk of harm	Appropriate training	Student has been given appropriate instructions	Justified by the syllabus
4	High impact More invasive or more risk of harm	Specialised training of teacher/expert competency	Specialised instruction and leading to demonstrated competence	Syllabus requirement
5	Demonstration only by an expert			Syllabus requirement
6	Activities not to be undertaken by or demonstrated to students in any circumstances			

	ACTIVITY	CATEGORY
1.	Observation of the normal behaviour of animals	1
2.	Mustering, capture, restraint and handling of non-free-living domesticated animals	2
3.	Non-invasive measurement of:	
	(a) body weight	2
	(b) growth	2
	(c) changed body proportions	2
	(d) pulse or blood flow	2
	(e) respiration	2
	(f) temperature	2
	(g) age by dentition	2
4.	Measurement of mild dietary effects:	
	(a) ad-lib v regimented	2
	(b) palatability	2
	(c) high/normal protein	3
	(d) high/normal energy	3
	(e) high/normal fat	3
5.	Behaviour activities:	
	(a) taming/gentling animals	2
	(b) training for performance or showing	3
	(c) breaking-in cattle or horses	4
6.	Collection of samples from the animals:	
	(a) wool/hair	2
	(b) milk	2
	(c) saliva	3
	(d) faeces invasive	3
	(e) measurement of body temperature (invasive) - large animals	3
	(f) ruminal fluid	4
	(g) blood	4



7.	Standard husbandry activities for livestock and other animals:	
(a)	ear marking/tagging of livestock	3
(b)	tattoo application	3
(c)	vaccination of livestock	3
(d)	administration of oral medications	3
(e)	injection of drenches or other appropriate non-restricted substances in livestock	3
(f)	external parasite control and treatment	4
(g)	hoof trimming and nail clipping	3
(h)	coat care and clipping	3
(i)	shearing of sheep, goats, alpacas and llamas	3
(j)	crutching	3
(k)	milking	3
(l)	nose clips on cattle	3
(m)	loading and unloading of animals onto transporters	3
(n)	foot bathing	3
(o)	fire branding horns of stud sheep	3
(p)	sire harnesses	3
(q)	horn tipping	4
(r)	branding of cattle and horses	4
(s)	tail docking of lambs or piglets	4
(t)	tooth trimming/removal in piglets	4
(u)	debeaking in intensive poultry systems	4
(v)	artificial insemination	4
(w)	semen collection	5
(x)	pregnancy diagnosis	4
(y)	microchip tagging	4
(z)	nose ringing	4
(ai)	dehorning of cattle under six months of age	4
(bi)	disbudding of calves and kids	4
(ci)	castration of immature livestock	5
(di)	mulesing of young sheep	4
(ei)	slaughter of stock	5
8.	Prohibited activities The activities set out below may not be carried out by students or demonstrated to them.	
(a)	performance of surgical procedures without anaesthesia other than in the conduct of normal animal husbandry operations	6
(b)	induction of infectious diseases	6
(c)	nutritional deficiency giving rise to distress	6
(d)	administration of drugs or chemicals other than those recommended for a particular therapeutic purpose	6
(e)	administration of ionising-radiation or other biohazardous material	6
(f)	other stimuli causing distress	6



LETTER OF THANKS

Dear Ms Hope,

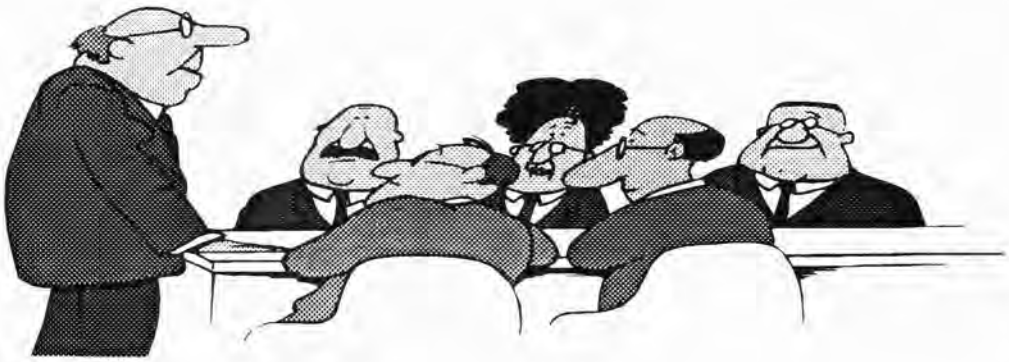
I would like to thank the NSW Association of Agriculture Teachers for the Charles Mullavey Memorial Award 1996. I am very proud to receive it

Thank you for making Agriculture such an interesting and enjoyable course to study for the HSC - I found it very rewarding.

Yours sincerely,

Ju-Lee Ooi

NSW Association of Agriculture Teachers 1999 Biennial Conference



Minutes of Meeting : 14 August 1997

Present : P. Napier, M. X. McGee, P. McCann, A. Babos, H. Kleinsbergs, T. Thompson, K. Damic, T. George-Neville

Apologies : O. McLaughlan

Agenda

This was our first meeting to begin organising the 1999 Bi-Annual NSW Association of Agriculture Teachers Conference to be hosted in Orange. A tentative date has been set for Monday, 18 January to Thursday, 21 January and this date has been claimed with the Orange Agricultural College where the Conference will be held.

1. Proposed theme and Agenda

Theme: from a Systems approach to Management, the Conference will centre on **Management into the new Millennium and trends in Product Marketing.**

Agenda:

Monday, 18 January
Registration 3.00pm. Theme opening address
Tuesday, 19 January
Address - Global View of Agriculture
- External Factors affecting Management
Morning Tea
A variety of workshops focussing on Product Quality and Processing
Afternoon Tea
Local research in Agricultural production
Dinner and Wine Tasting
Wednesday, 20 January
Tour Day to Bloodwoods vineyard, Trout farm at Wyangala Dam
Awassi sheep at Cowra. Dinner to present the products of the day
Thursday, 21 January
Management analysis based on previous day
Morning Tea
Sustainable Agriculture in the new Millennium
Afternoon tea
BOS and DSE guest speakers
Conclusion of the Conference.

2. Election of Office Bearers

A. Babos - Coordinator
P. McCann - Secretary/Treasurer
H. Hleinbergs - Assistant Secretary/Treasurer
M. X. McGee - Entertainment, Food and Drinks
T. Thompson - Wine Industry Liaison
P. Napier - Fundraising
K. Damic & T. George-Neville - Board of Studies and Department of School Education liaison

3. Next Meeting set to 16 October at James Sheahan Catholic High School at 4.30pm.

4. Our E-mail address is as follows.

sheahan@netwlt.net.au Please note that you should always put in the subject as CHAAT (Central Highland Association of Agriculture Teachers). This will make it easier for us to find your mail when we search the mailbox.

Regards
Attila Babos

I am sure that the organising committee would appreciate any feedback or help that you may be able to give ASAP.

Ed.

The Great Agriculture Adventure

News from the Sydney Branch of the Association of Agriculture Teachers

G'day and I trust you all had a great holiday. The Sydney Branch has been very busy organising activities this term. Outlined below are a number of functions and we look forward to many more later in the year and next year.

The Committee has put forward a proposal for the formation of a Special Interest Group (SIG) for Agriculture. The proposal was sent to Council on Saturday, 13 September and they agreed to the formation of a SIG for Agriculture. Our next SIG meeting is to be held at the Marconi Club on Tuesday, 14 October at 4.30. All interested members are welcome. We hope to address issues like class sizes and allocations, so if you have ideas, give us a fax on (02) 95435513. A special thanks to Peter Crick for sending down information on the last SIG.

Well done to Angela Currey and Nicolet Westerhof for organising the Inservice at Eskine Park High School. It was a huge success and all the people I talked to found it most rewarding. Thanks also to Kathy De Jong, Phil Hurst, Karen Heap, Alan Burt and Glen Dudley who gave up their valuable time to present ideas.

Our next Inservice was on 4 September at Colo High. Thanks go to Peter Jones for illuminating us on the new Junior Ag Syllabus and hydroponics. Once again a large number of people attended and a good time was had by all.

Junior AgCamp was a great success and all our attention is now focussed on the Senior AgCamp. It took place on the first week of the holidays and I know all who attended found it a worthwhile experience. Well done to the University of Western Sydney (Hawkesbury Campus), Sydney Uni and the organising committees for their hard work and dedication. Any questions - contact Graeme Wells at Riverstone High School.

I have included in BAAT a document about the history of the Sydney Branch. Any one with knowledge on past Presidents etc., please fill in the sheet and fax it off. Thanks.

We are currently working on the database of all teachers and schools teaching Ag with Phil Armour and that will appear in the next BAAT edition. This should greatly improve networking and make our job a little easier.

Next term we plan to have a Christmas party for all our financial members and we are planning a lot more invaluable inservicing. Have a great term.

Dates to remember : 14 October, 4.30 - SIG Federation Meeting, Marconi Club
14 October - next Ag Com meeting - same baat time and place

Agriculturally yours,



Ian Judd
President Ag Teachers Association
Sydney Branch



PROFILES

THE FACES BEHIND THE NAMES

STATE EXECUTIVE



President : Sue Hope

Address : 10 Gibson Street
GOULBURN NSW 2580
Phone : (w)(02)4821 4002
(h) (02)4821 1279
Fax : (02) 4822 1437
Other : " B i r r a n k "
C O N D O B O L I N
NSW 2877

History :
1977 Wade High School and North Albury; 1978-1980 Nyngan High School; 1981 - 1993 Moss Vale High School; 1994-1997 Goulburn High School - Head Teacher Administration.

My Role :
Currently: the President of the NSW Teachers' Association of Agriculture. I endeavour to maintain a quality BAAT magazine and keep all members in the State informed about current educational changes.

Secretary : Trevor Sewell

Address : 161 Vulcan Street
MORUYA NSW 2537
Phone : (w) (02) 4474 2155
(h) (02) 4474 3358
Fax : (02) 4474 3782
Other : Moruya High School
E-mail : aatsectj@acr.net.au



History :
Armidale T.C. 1959-1960; Bathurst HS Maths 1961; Quandialla Central 1961-1962; Mudgee HS 1963; Boorowa Central 1964-1968; Narrabri HS 1969-1975; Kooringal HS (Wagga Wagga) 1975-1987; Inverell HS 1987-1988; Moruya HS 1989-1997.

My Role :
Communication across the State. Continue co-operative, team effort. Attempt to overcome problems of distance, whilst uniting Agriculture Teachers.

Treasurer : Phil Armour

Address : Yass High School
Locked Bag 1
YASS NSW 2582
Phone : (w) (06) 226 1711
(h) (06) 227 7284
Fax : (06) 226 3174

History :
The Scots School, Bathurst 1977-1984; The King's School 1985-1987; Yass High School 1987-1997. BSE Agr. (Sydney) Dip Ed. (MACE). Live on Fine Wool/Cattle Property at Bookham.



My Role :
Treasurer of NSWAAT Executive Committee. I see a major function as ensuring that the NSWAAT membership is as high as possible. This involves contacting non-member schools; contacting members; maintaining data base of agricultural schools and teachers. Pursuing arrangements with various companies with a view to providing additional member services. Liaising/meeting with the rest of NSWAAT executive to work on general business of the Association. Member of the State Agriculture Advisory Group.

Editor/Coordinator : Craig O'Brien

Address :
Moss Vale High School
PO Box 137
MOSS VALE NSW 2577
Phone :(w) (02) 4868 1717
(h) (02) 4868 1154
mobile 017 893 933
Fax : (02) 4868 2787



History :
Born and raised in Goulburn; attended Wagga Agriculture College 1975-1977; Dip. Ed. Riverina 1979; Murray High School, Albury 1979-1992; Moss Vale High School 1993-1997 (haven't left the main southern railway).

My Role :
Member organising committee 1997 Agriculture Teachers Conference at Berry; Co-ordinator of BAAT 1997-1998; HSC marking 3 Unit 1992-1993, 2/3 Unit 1994-1997; Member of State Agriculture Advisory Group 1997-1998; CEC Rural Industries teacher.



Sydney Branch
NSW ASSOCIATION
OF AGRICULTURE TEACHERS

President : Ian Judd

Address : Menai High School
Gerald Road
ILLAWONG NSW
2234

Phone : (w)(02) 9543 7000
(h) (02) 9543 5513
Fax : (02) 9773 7452



History :
Born 1963 in the glorious suburb of Manly - hence support the best footy team. Raised in Moss Vale, travelled around the world, Sydney University Graduate, worked as a checkout operator, milko, Mung bean packer before deciding to teach.

My Role :
Expert Mung bean packer. Assisted with organising Agriculture Competition, Junior and Senior AgCamp. As President of Sydney Branch, I will represent your view about teaching Agriculture. I will try to improve the resources and networking of teachers. In addition, I will try to improve the conditions under which we all work.



Secretary : Vicki Willmington

Address : Bossley Park High School
Prairievale Road
BOSSLEY PARK
NSW 2176

Phone : (w) (02) 9823 1033
(h) (02) 4721 4667
Fax : (02) 9823 7835

History :
Born and raised at Luddenham; Ag. Degree from Wagga Ag. College (CSU); Dip Ed. - Sydney Uni.; Arrived Bossley Park High School as a first year out teacher in 1991 and have been there ever since.

My Role :
Record Minutes (Sydney Branch Meetings), send out Minutes, correspondence. Who knows? It's a learning experience.

Treasurer: Tracey Watson

Address : Bossley Park High School
Prairievale Road
BOSSLEY PARK NSW
2176

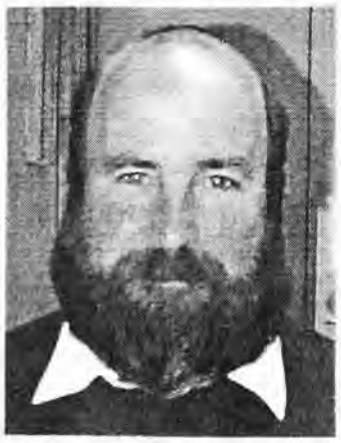
Phone : (w) (02) 9823 1033
(h) (02) 4655 1720
Fax : (02) 9823 7835

History :
Started teaching 1990. Became involved with the Sydney Branch in 1991. Was Treasurer 1993, Secretary 1994, 1995, 1996. Interested in goats. Dabbling in crossbreeding with Boer goats.



My Role :
Collect membership fees; maintain membership file; maintain financial records.

Peter Jones : Agriculture Teacher



Address : Colo High School
Bells Line of Road
NORTH RICHMOND
NSW 2754
Phone : (w) (02) 4571 2011
(h) (02) 4573 1945
Fax : (02) 4571 3391

History :
Wagga Ag. College 1971-1973; Riverina College of Advanced Education Dip. Ed. 1974; Riverstone High School 1975-1977; Colo High School 1978-1997.

My Role :
Executive Officer State Agricultural Advisory Group; Executive Officer Metropolitan West Agriculture Committee; Rural Industries CEC teacher; Australian Student Traineeship Foundation Grant recipient; HSC 2 Unit Senior marker; AgCamp Committee member Agriculture Education Co-operative Committee member; 2 Unit Agriculture Presenter 1997 HSC Enrichment seminars at Tamworth; Link person to loan out large posters/photographs which can be used for subject selection evenings.

BOARD OF STUDIES

BOARD OF STUDIES
NEW SOUTH WALES

Jenni Wilkins : Senior Curriculum Officer President NAAE



Address : NSW Board of Studies
GPO Box 5300
SYDNEY NSW 2000

Phone : (w) (02) 9367 8165
(h) (02) 9560 9969
Fax : (02) 9367 8476
Other : E-mail wilkins@board of studies.nsw.edu.au

History :
Agriculture teacher since 1984; supervisor of HSC Agriculture marking and curriculum office at the NSW Board of Studies since 1984; President of the National Association of Agricultural Educators since 1993.

My Role :
Senior Curriculum Officer : (Vocational Education) responsible for vocational courses in NSW schools and the development of the Stage 4-5 Agriculture syllabus.
President National Association of Agricultural Education (NAAE) which represents all professional associations of agricultural teachers across the six states of Australia - on the Board of the Technology Educators Federation of Australia.

Sally Bannerman : Project Officer TAS Board of Studies



Address : 56 Tecoma Drive
GLENORIE NSW 2157
Phone : (w & h) (02) 9652 1291
Fax : (02) 9652 1291

History :
Agriculture teacher; past President Sydney Branch AAT; contract writer for Distance Education HSC Agriculture; Senior examiner HSC marking.

My Role :
Project Officer TAS Board of Studies; Writer for Curriculum Directorate HSC On-Line.

OTHER

James White :
SEO2 T&D Curriculum Co-ordinator

District :
Currently the Training & Development/Curriculum Co-ordinator for the Armidale District. Agricultural interests include :

- Representing the DSE on the Agriculture Advisory Committee and the 7-10 Syllabus Writing Team.
- 18 years teaching experience specialising in Agriculture with additional experience in Science and Design & Technology.
- Technological & Applied Studies Consultant for the North West Region in 1994-95.
- Managing the family sheep and cattle property.
- Member of the Secondary Schools Facilities Review working party for TAS.

Current Areas of involvement of relevance to Agriculture include :

- Initiatives in Literacy (support material on literacy strategies for teaching Agriculture should be published in the next BAAT).
- Strategies to implement the Aboriginal Education Policy.
- Training & Development opportunities for Agriculture teachers.

Phil Hurst :

Address :
Hawkesbury HS
Hibbert's Lane
FREEMAN'S REACH NSW 2756

NSWAAT Representative on -
School's Animal Care and Ethics Committee.

Department of School Education representative on *State Agriculture Advisory Group.*

Cotton Australia's world wide web site -
www.farmwide.com.au/nff/cotton/cotton.htm
carries a lot of general information on cotton growing in Australia, and we can be emailed for further information on
shelleysp@msn.com.

This web site should by now include an interactive education section where students can, among other things, design their own farm, including setting up crop rotations etc.



Our Editor wants....

activities/lessons
experiments

THAT WORK!!

Send them post-haste to his residence at Moss Vale High School.

This is your feedback speaking....

Can anyone help with information on

SIMFARM
and
CRICKEY THERE'S A TRACTOR ON THE FARM

If so, please contact

Dale Chadwick
Gundagai High School
Hanley Street
GUNDAGAI NSW 2722
Ph (02) 69441233 Fax (02) 69442180

COMBINED MEETING of State Executive, Sydney Branch and Board of Studies

Meeting held at Moss Vale -
30 May 1997.
Joint with Sydney Branch.
Record of discussions.

Present :
Sue Hope (Goulburn HS), Trevor Sewell (Moruya HS), Phil Armour (Yass HS), Craig O'Brien (Moss Vale HS), Dave Kent (Chevalier College), Jenni Wilkins (BOS), Ian Judd (Menai HS), Sally Bannerman (Project Officer TAS), Vicki Willmington (Bossley Park HS), Tracey Watson (Bossley Park HS), Peter Jones (Colo HS).

1. Welcome and introductory comments - Sue Hope, Craig O'Brien and Ian Judd.

2. Agriculture Teachers' Training - no courses offered WA and SA. Course at Sydney Uni has been dropped at present. Only five avenues for training left in NSW. Concern over the lack of credit transfer with TAFE for 2 or 3 Unit courses into any TAFE course. Suggested that our course is not skills based enough!! There is a Credit Transfer Committee - an arm of the Board.
   Scots Bathurst and CSU have a "joint" units arrangement. Fee is involved. Credit to CSU.

** Action : Letter BOS - HSC Credit Transfer Committee - request review of the 2U / 3U Ag. course in relation to appropriate TAFE courses. Coy to Reg Kidd - Western Region, TAFE. (Orana?)
   Concern over lack of HSC Ag. students going on to tertiary and into Ag. and into teaching. Schools need support at all levels. Agricultural Education Co-operative - Prof. John Chudleigh at Orange Agricultural College. The general recommendation in schools seems to be to do Physics and Chemistry for any students wanting to go on to tertiary studies and any science contemplated.

** Action 1 : Sue Hope and Ian Judd to liaise with Co-operative, express our appreciation of their efforts. Outline NSWAAT concerns and seek support and ideas, especially at tertiary level.

** Action 2 : Craig O'Brien to contact Ag. Co-op re. items and ideas for BAAT.

3. Some incidental information : Peter Jones has some large posters (1m x 2m) for Careers' Markets and the like. Request and postage to be paid by borrower.
   Richmond HS - Dave Randall and Dave Spence have some information relating to bulk communication and Telstra.
   Government Courier - deliver free - school to school - A4 sheet folded into thirds.

** Action : Sue Hope to contact Joint Council re. mailing and other communication avenues.

4. Sally Bannerman - Project Officer TAS (Stage 4-5 Syllabus) : After meeting with a number of "Focus Groups" around the State and a number of survey responses, the Draft Syllabus has been modified and a number of "sample" unit programs have been developed by teachers. There is now a statement that in the Junior Syllabus, "practical experience should occupy **a minimum of 50 per cent of allocated course time**."
   Sally is seeking informed evaluation of the "draft" programs and other ideas for resources or detail that should be included in the support document.
   Discussion about the column "Student Experiences or Outcomes". Suggested that it should be Student Experiences, Activities, Involvements - relating to the actual things being done. Suggested that there be some pro forma sheets included - assessment recording sheets, possibly a mind map of "ways programming may be achieved". Sequencing.
   Suggested that the Stage 4 and Stage 5 programming outlines be opposite each other for comparison of "level" or application required.

** Action : Left with Sally, plus evaluations from members present.

5. Jenni Wilkins - National Association of Ag. Teachers.
Initiatives - TEFA (Technology Education Federation of Australia) sending papers on environment and technology - for publication in BAAT.
TEFA Teacher Awards - asking Professional associations to nominate teachers. Criteria are based on Design & Technology. Suggested Sheree Burke.
TEFA - $300 for establishing an e-mail address. Jenni has the money.
** Action : to be allocated to State Secretary. Trevor Sewell to follow through with arrangements. Wool International - package being prepared to research alternative ways of selling wool. $17,000 being spent. Copy to each teacher Agriculture nation wide.

6. Peter Jones : a) State Properties Reference Group seeking NSWAAT input. Principals' Council committee - George Bishop (Wade HS) and Jim Mather (Delroy HS) with Directors Dave Rowland and Dennis Clancy. As an interim measure Peter Jones and Phil Hurst have been advising. These positions confirmed. Phil Armour and Craig O'Brien also nominated. New nominees required at AGM of NSWAAT in 1999. Our thanks to Peter and Phil for their time and efforts as representatives so far. Next meeting of the Committee will be June 13 at Mt Druitt District Office, 9am to 12. Principals' Memo will come out shortly surveying all schools (i) Agriculture student enrolment: (ii) Tractor situation : replacement money is allocated in budget, but nobody knows where to spend it because there are no current records.

7. OH&S training needed for teachers and Farm Assistants. This is beyond what is being done with Rural Industries. Request for DSE support to provide appropriate T&D. Suggest that those trained for R.I. become the trainers. Chemicals and Machinery as well as general safety.
** Action : Letter to D.G. and Minister. Draft to Jenni Wilkins. Relate to Students, curriculum, R.I. hazardous substances, Agenda '97 - Happy and Safe Schools, OH&S.

8. Agriculture Facilities Code : Sheree Burke.
Considerable discussion and confusion over the present situation about Agriculture sheds, established grants or equipment for new schools and schools taking up Agriculture. The situation used to be that a school had to apply to introduce Agriculture and get approval. There was then (almost automatically) an establishment of tools, machinery, land area and a shed. Is there a standard shed design now? Are schools granted the money and then left on their own?
** Action : Letter to Dave Rowland - Director Properties - to get some answers. Can we have some input? Maybe through the Properties Reference Group?

9. Period Allocation : There should be a period allowance for the teacher who is designated as the "Farm Manager" in a school. For any school this would be part of the "Concessional Periods" which are allocated at Staffing time and is based upon the number of students. The Principal is responsible for the in-school allocation of these periods. There are many competing interests in each school - Sports Organiser, Student Advisors, Welfare Co-ordinator, etc. We would have to be careful that all sport coaches and the like do not also see a need to now bid.
Agriculture teachers would need to work through their Head Teacher and Principal to gain a priority for an allocation.
** Action : Refer to *Feedback from Meeting*.

10 Sydney Branch have been conducting a survey of Ag. teachers and schools to establish a data base from which useful information can be gained.
**Action 1 : Ian Judd to work with Phil Armour to develop a survey to cover the whole State school system where Agriculture is taught. Eventually to try and get the data to DSE and possibly available on the DSE Internet site.
Action 2 : Send out survey through Joint Council mailing system.

11 HSC Country Marking : Sue Hope presented a draft letter. This was modified by many. The final letter to be sent to John Cook. *Reply from John Cook - next page.*

12 HSC On-Line - request for teachers and students to use. Does not include the Preliminary course yet. Joint venture with CSU. Includes a range of activities, exercises, resources, Internet/Web sites. ***http://hsc.csu.edu.au.***

Glen Dudley, Curriculum Directorate, Ryde available to give a presentation to school, staff, association.

13 Networking - worked through the 40 Districts and nominated teachers / schools to be approached as contact people. We need to develop a package with specific job description and some tasks to do. Must aim to avoid overload.

** Action : Executive will develop a package and then contact the people involved.

14 Special Interest Group : need to be formed to push issues through Federation, eg. class sizes, Farm manager allocation, status of Agriculture. Peter Crick at Duval HS, Armidale to be contacted by Sydney Branch as he was very involved in earlier Special Interest Groups and the Federation. also to contact WorkCover in relation to OH&S issues then I.A. and HSC and TAS groups to check where they are up to so that we do not start off by treading on toes or ground already covered.

Meeting closed at approximately 4.30 pm. Followed by a South Coast / Southern Highlands Meeting and the State Executive.

ASENDER

LIFT BARROWS & TRAILERS

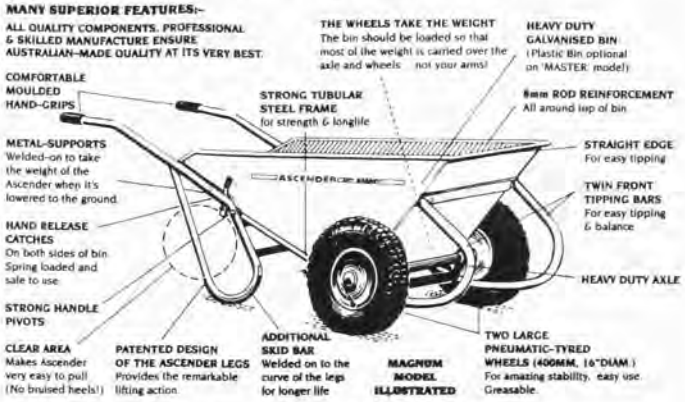
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* Lifts the load from Ground Level
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* Reduces the Risk of Back Injury
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Feed Back from Meeting -

1. Period Allocation :

There should be a period allowance for the teacher who is designated as the "Farm Manager" in a school.

For any school this would be part of the "Concessional Periods" which are allocated at Staffing time and is based upon the number of students. The Principal is responsible for the in-school allocation of these periods. There are many competing interests in each school - Sport Organiser, Student Advisors, Band and Choir, Executive release, Public Speaking and Debating, Computer Co-ordinator, Welfare Co-ordinator, etc. We would also have to be careful that all sport coaches and the like do not see a need to now bid. Agriculture teachers would need to work through their Head Teacher and Principal to gain a priority for an allocation.

Agriculture Teacher as the "Farm Manager" responsible for the wide range of resources, budgeting for Agriculture, supervision and daily management of the Farm Assistant and ensuring the Departmental requirements are adhered to (financial, animal welfare, etc.)

How schools manage this aspect of school agriculture varies. Some schools have a Head Teacher Agriculture who is responsible, some have these responsibilities covered by the Head Teacher Science or TAS, some schools share the responsibilities amongst the Agriculture teacher and some schools give the major areas of responsibility to the Farm Assistant.

It is the responsibility, within each school's own planning of staff allocations, to determine who is "granted" what concessional periods. There is no pre-determined formula There are some established role allocations such as to the Sport Organiser, Year Advisors (if not paid), etc.

Trevor Sewell.

2. Country Marking

Ms Susan Hope
President
NSW Association of Agriculture Teachers
Goulburn High School
Goldsmith Street
GOULBURN NSW 2580

8 July 1997

Dear Ms Hope,

I refer to your letter of 23 June 1997 written on behalf of the NSW Association of Agriculture Teachers. The Board of Studies is currently reviewing options for Agriculture 2 Unit and 3 Unit marking in 1998 and welcomes the advice of your Association. The Association views will certainly be considered when the decision is made.

The Board is sensitive to the needs of country teachers and considers it may be timely to give Agriculture teachers in areas beyond Wagga Wagga an opportunity to mark part of the Agriculture papers in their local area.

Your concerns regarding the release of teachers is noted. The experience in marking HSC English in Coffs Harbour, however, suggests there is strong support from country schools for marking, even when it requires the short term release of teachers. Be assured your views will be given consideration when the decisions regarding Agriculture marking for future years are taken.

Yours sincerely

J S Cook
Director
Examinations & Assessment
Board of Studies

STATE AGRICULTURE ADVISORY GROUP

Meeting #1 9.20 am 13 June 1997 Mt Druitt District Office

Present :
Jim Mather, Delroy High School; Chris Evans, Mt Druitt District Office; Peter Jones, Colo High School; Phil Armour, Yass High School; Phil Hurst, Hawkesbury High School; Craig O'Brien, Moss Vale High School.

Apologies : Nil

AGENDA ITEMS :

1. **Welcome by Chris Evans.**

2. **Terms of reference for the group.**
This group is to be established in order to provide advice to the Directors of Schools' Financial Support and Properties on Agriculture in NSW Government Schools.

The advice will cover the following grants :
- B2 Maintenance Grant as linked to Agriculture
- B4 Stores Grant for the purchase of seed, fuel, fertiliser and other consumables linked with the teaching of Agriculture.
- purchase of major equipment items, eg. tractors, rotary hoes.

Chris suggested that this group will make recommendations and not decisions.

3. **Background to the groups formation :**
Prior to the removal of the 'Regions' Met. West Region had a formal structure in place which equitably funded the teaching of Agriculture in that Region.

Methods of funding Agriculture varied widely from Region to Region across the State. Lobbying by the Met. West Ag. Committee to the Secondary Principals Council had taken place in order to establish the Met. West model on a State wide basis.

Since the removal of Regions Dennis Clancy had also formally requested meetings with representatives of the Met. West Agricultural Committee in order to determine how the funding of Agriculture could be performed on a State wide basis.

Dennis Clancy wanted to also gain the advice of the NSW Secondary Principals as to how funding should occur in the future.

4. **Membership of the Group**
The group will consist of six members.

The structure of the group will be :
- a representative of the NSW Secondary Principals Council
- two representatives from the NSW Agricultural Teachers Association
- up to three other members from the NSW Department of School Education.

The NSW Ag. Teachers Association will nominate the two members in a method which that association sees fit.

The Advisory Group reserves the right to co-opt other members to the group whom they see fit.

5. **Election of Chairperson and Secretary**
It was decided by the meeting that -
- Jim Mather be the chairperson
- Peter Jones be the secretary

6. **Main Business - State Survey** of Schools Teaching Agriculture
A draft copy of the Met. West survey was tabled by Peter Jones.
The group discussed necessary changes to this survey.
Peter Jones is to reformat the survey.

Problems of funding schools on the previous year's enrolments were raised but the meeting agreed that this was the fairest way of doing it.

It was recommended by the meeting :
a) those schools who do not return their survey will not be funded.
b) the Principal or their appointed delegate will be required to sign the survey.
c) machinery originally supplied by DSE and which has now been replaced by the school using that school's Global Budget funds should be considered for replacement.
d) a covering letter needs to be sent out with the survey.
e) Jim Mather is to draft the letter which is to be sent to Peter Jones. Chris Evans is to assist in the editing of the letter.

f) the final product is to be sent to Dennis Clancy for vetting and mailing out.
g) Jim Mather is to be the nominated contact person shown on the covering letter.
h) there will be a two week turn around for the survey once it reaches the school.
i) the survey is to be sent out to all government secondary schools in NSW as the equipment survey is asking Principals to list all tractors and machinery held on their OASIS assets registers.
j) the survey needs to be sent out in early July and replies should be back by early August.
k) replies are to be sent to the Schools Financial Support Unit.
l) Phil Hurst and Peter Jones will meet at Bridge Street in the second week of August to help set up the spread sheet and make contact with those schools whose forms are missing.
m) all four teachers would meet at Bridge Street towards the end of August to review the surveys and allocate the points for each school.
n) the actual weight of points for the different years will be decided at the late August meeting.
o) a meeting of all of the advisory group will occur in early September at Bridge Street.

7 **General Business**

Publication of Agricultural Allocations

It was agreed that the amounts allocated to individual schools be published in the NSW Ag. Teachers Association called BAAT.

Dennis Clancy had already agreed to this request.

It was hoped that the publication of these figures would allow teachers to know how much their school was allocated.

Ensuring Correct Use of Funds

It was agreed that the funds ***not*** be listed as a "tied grant".

It was explained by Jim Mather as to the feelings of Principals towards tied grants.

It was thought that school Principals are allocating a lot more financial assistance to Agricultural faculties than that which comes from the Schools Financial Support Unit to the school for Agriculture.

The meeting felt publishing the allocations in BAAT will allow teachers to know exactly how much has been allocated to their school. Ag. faculties whose Principal allocates less than the amount allocated by the Schools Financial Support Unit would have a right to complain to their respective Principals.

The meeting recommends that the letter that goes out with the actual allocation needs to have "for Agriculture" clearly stated on it.

Frequency of Meetings, Venues

There are to be two meetings per year of the whole advisory group.

Semester 1 meeting to be held at Mt Druitt District Office.

It's function is to :-

1. review the previous year's allocation
2. implement the survey process for the present year.

Semester 2 meeting (early September) to be held at DSE Bridge Street.

It's function is to :-

1. make recommendations in the allocation to individual schools
2. discuss any other issues that may arise

There will need to be a meeting of the teachers on the group in late August to process the forms prior to the September meeting of the total group. The August meeting needs to be at Bridge Street.

Financial Support for Group Meeting

Dennis Clancy has financial assistance for travel and relief. Those requiring assistance should bill his Unit.

Having a TAS Curriculum Representative on the Ag. Advisory Group.

It was recommended by the meeting that we don't need a TAS rep. on this advisory group. This is because this group has purely an advisory role to the Schools Financial Support Unit and has little to do with curriculum as such.

Funding of all DSE Schools with Agriculture Facilities

There was some discussion as to the correct procedure in establishing Agriculture at a school. It was brought to the meeting's attention there were some schools which have not had "official" approval to have Agriculture on their curriculum.

Chris Evans explained schools wishing to start Agriculture need to have their Principal write to their District Superintendent seeking permission. It would then be up to the District Superintendent to raise the matter with Properties.

It was agreed by the meeting that funding will need to be given to all DSE schools with agricultural facilities irrespective of whether they have been given official approval or not. It was felt part of the group's role was to support Agriculture in schools.

Meeting closed 11:45 am

Peter Jones
Secretary
State Agricultural Advisory Group.

Meeting #2

8 September 1997

The following information relates to the results of the second meeting of the State Agriculture Advisory Group held at Bridge Street.

(I) FORMULA DEVELOPED to allocate funding units for 1998

Unit value to be determined by Treasury (Base figure of $200 is being recommended).

a. For students studying Agriculture

Unit Value for Each Student/Year		Values Allocated for Years 7 to 10	
Year	Value	Periods Per Week	Weeks per Year
7	10	0 = 0	0=0
8	10	1 = .25	1 to 10 = 0.25
9	10	2 = 0.5	11 to 20 = 0.5
10	10	3 = 0.75	21 to 30 = 0.75
11	5	4 = - 1.0	31+ = 1.0
12	5	**Values Allocated for Years 11 and 12**	
		any value = 1 (includes 3 unit)	any value = 1

b. Unit values allocated to "other" courses

IM Support	= 15	Horticulture	= 10
K to 6	= 5	Shearing shed skills	= 5
Rural Industries CEC	= 10	Animal Management/Husbandry	= 10
Environmental Education	= 5	Farm Technology	= 10
Farm skills	= 10	Science For Life	= 5
Landscape Gardening	= 5	Horse Management	= 5
Rural Technology	= 10	Junior Science	= 5
Transition Education	= 10		

The formula

Number of students in a year or course X unit value given to that year or course X value for periods per week X value for periods per year = units

Example One - a school with 110 Year 7 students studying Agriculture for 3 periods per week for 13 weeks of the year would have the following points allocated to them -

110 * 15 * 0.75 * 0.5 = 618.75 points

Example Two - a school with 10 Year 11 students, 6 Year 12 students doing 2 unit and 3 students studying Agriculture at the 3 unit level will have the following formula -

(10 + 6 + 3) * 5 * 1 * 1 = 95 points

Example Three - a school with 10 Year 8 students doing an IM Support course for all of the year will have the following formula -

10 * 15 * 1 * 1 = 150 points.

(II) MAINTENANCE OF AGRICULTURAL MACHINERY

Information supplied to the Agricultural Advisory Group via the Agricultural Machinery Survey 1997 indicated there is a range of equipment kept and used on school farms that is in various states of disrepair.

The Advisory Group wishes to remind agricultural teachers of the following:

1. Under the guidelines set out in the Occupational Health and Safety Act (1983) it is YOUR responsibility to provide a safe working environment for students and staff you are responsible for - eg. farm assistants). Letting people use machinery that you know is unsafe due to wear or breakage, places you in a precarious legal situation should someone be injured by that machinery.

2. The schools Financial Support Unit has allocated a sum of money to every school teaching Agriculture for the specific purpose of repair and maintenance of agricultural machinery used for Agriculture. The exact amount varies with the level of activity of Agriculture. The amount is in the vicinity of $500.

3 It is up to the teacher in charge of the agricultural facility of that school to spend that money on the repair and maintenance of any machinery to bring it up to safe levels prior to it being used.

4. It is proposed by this Committee that a similar amount of money be available in 1998 for the repair and maintenance of machinery. This is yet to be confirmed by the School's Financial Support Unit.

5. Submission for the replacement of major items of agricultural machinery eg. tractors, rotary hoes etc is being investigated. If, when and what kind of machinery you would receive, is in the hands of Properties Directorate and Treasury. The recommendation from this Advisory Group is that the priority for the replacement of tractors is as follows:

Priority	(1)	all 'dangerous' tractors
	(2)	any tractor over 10 years of age
	(3)	any tractor with usage hours over 2000.

Schools with tractors outside of these categories would have some time to wait before replacement occurs.

6. This Advisory Group has recommended to Properties Directorate to replace only one tractor per school farm. This tractor has been identified by the committee from the survey. It will be the responsibility of individual schools to replace other tractors.

7. The advisory group asked Properties Directorate to formulate a policy for the disposal of dangerous or unwanted machinery.

Further inquiries on information listed above can be sought from Jim Mather, Chairperson Agricultural Advisory Group located at Delroy High School, OR Peter Jones, Executive Officer at Colo High School.

A BLAST from the Past .....

a list of teaching members in 1973. Did they really adapt to the decimal system and learn to Surf the Net?

Alexander, I.	Farrer
Bancroft, W.	Richmond River High
Beattie, R. G.	Moss Vale
Bennett, W.	Kempsey
Buckham, J. (Miss)	PLC, Pymble
Buckley, K. S.	Molong
Burns, D. N.	Quandialla Central
Bush, K. J.	Goulburn
Chapman, B.	Camden
Cobby, J.	Bathurst High
Collins, J. W.	Casino
Crain, G.	Mt. Austin, Wagga
Creek, G.	Gosford
Crofts, D.	Blayney
Davidson, P.	Richmond River High
Dawson, G. F.	James Ruse
Drummond-Forbes, D. (Miss)	Condobolin
Ducker, J. K.	James Ruse
Edwards, D.	Dubbo High
Edwards, P.	Deniliquin
Elliott, C.	Macksville
Ferris, D.	Gilgandra
Firth, R. J.	Boorowa Central
Ford, R. J.	Erina High
Geeves, R.	West Wyalong
Goodger, R. C.	Barham High
Guest, R. J.	Farrer
Haeusler, C. H.	Finley
Hall, D.	Inverell
Hamilton, T. R.	Cowra
Harris, E.	Gosford
Hawkins, S.	Windsor
Hickson, K. R.	Kyogle
Horgan, Br. John	Marist Brothers, Forbes
Hoy, D	Coffs Harbour
Hume, J.	Bingara
Humphrey, A.	Peak Hill Central
Johnson, I.	Milton Central
Kelly, P. (Mrs)	Armidale High
Kennedy, B. D.	Yanco Agricultural
Kidd, J.	Tooleybuc
Kilby, J. E.	Canberra Grammar
Knauer, R.	Kempsey
Lockwood, I. G.	Yanco Agricultural
Loughlin, B. J.	Mr Austin, Wagga
McConville, B. F.	Albury North
McLennan, E. D.	Casino
McPhee, E. W.	Albury High
Marrinon, A. D.	Mullumbimby
Martin, C. N.	Bathurst High
Martyr, K.	Muswellbrook
Mead, R. T.	Mt Austin, Wagga
Middleton, J.	Coonabarabran
Mitchell, A. G.	Warialda Central
Monley, P.	Armidale High
Musgrave, J.	Wauchope
Nursey, J. (Mrs)	Finley
Parbery, I. H.	Armidale Tchrs College
Paterson, M. B.	Warialda Central
Peareman, J.	Sydney Tchrs College
Peterson, S.	Hurlstone
Powells, B. M.	Corowa
Price, C. R.	Walcha
Purss, C. H.	Hurlstone
Redmayne, R.	Kyogle
Richardson, I.	Taree
Rowland D.	Scone
Ruming, Brian	Henry Lawson High, Grenfell
Sawyer, B. A.	Conobolas High, Orange
Scott, A. W.	Armidale Tchrs College
Scott, J. A.	James Ruse
Sewell, T.	Narrabri
Slade, J. R.	James Ruse
Sommerville, N. C.	Temora
Sutherland, D. A.	Hurlstone
Stait, M. H. (Miss)	Gulgong Central
Swann, K. P.	Tumut
Swinden, R. D.	Henry Kendal High Gosford
Thomas, D. E.	Tenterfield
Thomas, N. R.	Armidale High
Tunningley, D.	Manilla Rural
Vaughan, G.	Bega
Walters, E.	James Ruse
Weiss, P. W.	James Ruse
Williams, S. J. (Mrs)	Moree High
Winston, R. R.	Cowra
Worley, A. J.	Uralla
Zietsch, L.	Dapto



A REPORT FROM CHEVALIER COLLEGE

STAFF

David Kent
Michael Wall

Agriculture at Chevalier is taught as an elective subject. It is offered to Year 8 for 2 terms, and then to
Year 9 and Year 10 students as a 2 year elective. It is also offered to Year 11 and Year 12. Rural Industries is also available to Year 11 and Year 12 students.

There are 230 students doing Agriculture this year..

The School Farm

The size of the school farm is 14 ha consisting of 11 paddocks.

Enterprises on the School Farm

There are six enterprises operated on a small scale at the school farm. These include -

Beef Cattle : The farm has seven commercial cows (each one a different breed - Limousin, Angus, Shorthorn, Murray Grey, Poll Hereford, Galloway, Charolais). AI and natural mating occurs with the calves being sold at saleyards or entered into carcase competitions.

Showing Cattle : 25 students are involved in showing cattle at local shows (mostly carcass competitions). These include Gunning, Nowra, Crookwell, Moss Vale, Robertson, Kangaroo Valley, Goulburn and Sydney. They meet two afternoons per week and all students are on a feeding roster.

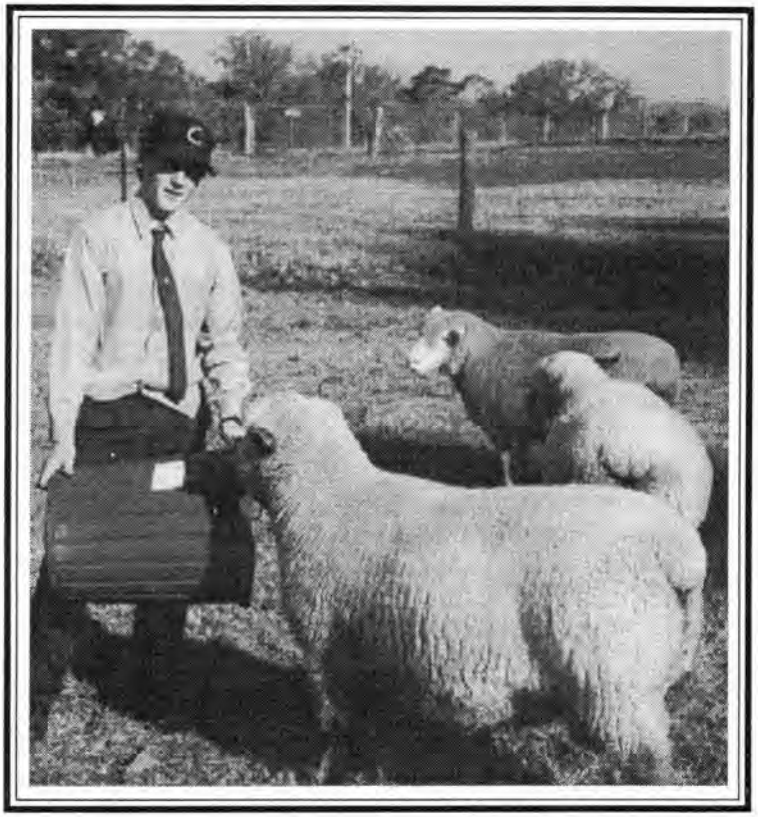


Chevalier College Show Team Receiving Champion Ribbon at Local Show



Tom Fleming with
"Hawstaed Haggin"
Champion Steer
MOSS VALE Show

Sheep : This is a major topic studied by Year 10 Ag. Operations carried out include crutching, wigging, drenching, vaccinating, marking and shearing. The farm has ten crossbred ewes sired by a Hampshire Down ram. Very good lambs are produced and have had a 150% lambing rate.



Vegetable Production : Years 8 and 9 are involved in vegetable production. The students have a small plot for their own use and they are involved in preparing, planting and maintaining class plots.

Some of the vegetables commercially produced include Silver Beet, Onions, Potatoes, Broccoli, Cauliflower and Pumpkins.

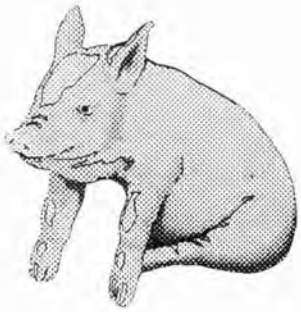


Poultry : Year 8 and 9 are involved with the maintenance of the laying hens. Breeds include Rhode Island Reds, Australorps and Leghorn Crosses.

Meat Birds : Year 11 raise day old meat birds for nine weeks (live weight 3.0 kg) and dress and market these birds at 1:8 kg.

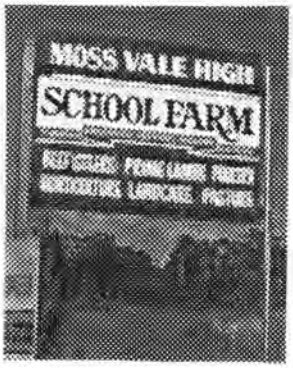
Pigs : The farm has four large white sows which farrow twice per year. Averaging nine piglets per sow. Year 12 are involved in husbandry techniques and use the piglets for observing growth and development in animals.

Bees : There are two hives on the farm. Year 10 are involved in extracting the honey and carrying out other maintenance.



MOSS VALE HIGH SCHOOL

Centre of Excellence in Agriculture



STAFF

Principal	:	Phillip Crampton
Teachers	:	Jemima Finlayson
		Judy Lockhart
		Craig O'Brien
Farm Assistant	:	Max O'Keefe

Moss Vale High School is situated on the Southern Highlands in the Wingecarribee region. Neighbouring towns are Bowral, Robertson, Goulburn and Mittagong. The school is situated on a hill with a rural outlook on the south-east side of Moss Vale.

Moss Vale High School was established in 1963 containing, when opened, a fully functional Agricultural Department, which was extended in 1967. The Agriculture plot is presently made up of 10 paddocks. The school has a student population of 735 pupils and 60 teachers.

There are 164 students in Years 9-12, who study Agriculture. In Years 7 and 8, students undertake Agriculture as part of Design and Technology for the equivalent of 10 weeks.

Courses which are run for Senior students are :

* Horse Masters
* Horticulture - Landscaping
* Rural Industries
* Agriculture, 2 Unit and 3 Unit

Alex Holdsworth,
Year 10 Agriculture student.



Year 9 students working in the flower garden

HORTICULTURE

The Horticulture aspect of Moss Vale High School was first started in 1993. Since then it has increased in size and value. The vegetable garden produces vegies all year round, with each Agriculture class participating in the growth and production of their own *vegie* patch.

The fruit that is produced throughout the year consists of strawberries, boysen berries, currants, nectarines, apples, persimmons, grapes and passionfruit. These fruits are then sold to pupils, staff and the community of the Southern Highlands.

Our flower garden consists of daffodils, sweet peas, dahlias and other cut flowers. Our main productive flower is the chrysanthemum which is picked and sold in bunches for Mothers' Day.

Angela Spence, Year 10 Agriculture student

BEES !

There are six bee hives in our Agriculture plot. Each hive consists of 80,000 bees. Usually just one person looks after the hives and collects the honey. The average amount of honey collected each year is 60 kg, this honey is then packaged and sold. The money collected from all the products sold comes back to our Agriculture plot and helps us in buying necessary equipment.

Angela Spence, Year 10 Agriculture student



Year 9 in Horticulture area

POULTRY

Moss Vale High School also has a fully functioning poultry farm which consists of some Khaki Campbell ducks and 67 chickens which includes Rhode Island Red, Australorp and cross breeds. The students help in the cleaning, feeding and watering of the poultry and in the collection and selling of eggs.

Alex Holdsworth, Year 10 Agriculture student

MACHINERY

Moss Vale Agriculture plot owns eight main pieces of farming equipment :

David Brown Tractor, 45 Horse Power, generally used for heavy ploughing and mowing.
Kubota 1750, 21 Horse Power, equipped with front end loader used for general maintenance work.
BT100 Kubota Tractor. (mid mower mounted) .... and others including Boom Spray, a range of ploughs, trailers, blades etc.

Every student studying Agriculture as an elective will eventually learn how to use this equipment safely and effectively with the experienced help of our Agriculture staff.

Angela Spence, Year 10 Agriculture student

SHEEP

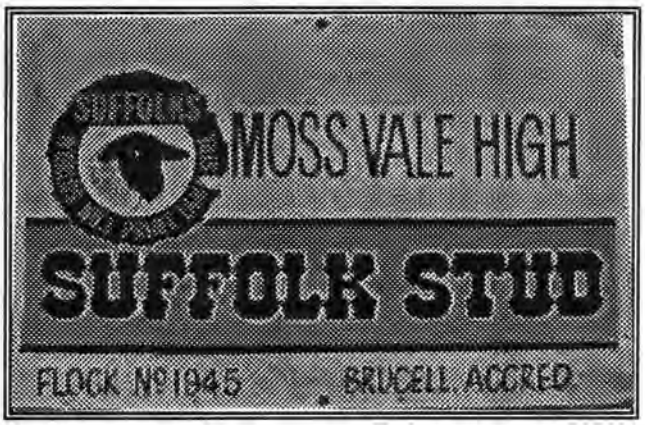
The school's Suffolk Stud was established in 1994 based on "Timor" (F. No. 1488), "Emmandot" (F. No. 1252) and "Redbrae" (F. No. 631) bloodlines.

In 1995 the school purchased a ram and five ewes at the Allendale Annual Sale. This giving the stud over 30 ewes and lambs and two rams (one which has since died after fathering 1997 lambs).

The establishment of this stud has enabled interested students to participate in the preparation and handling of sheep for various shows in the Southern Tablelands circuit as well as the Sydney Royal and Albury Sheep Show.

These students and teachers commit themselves in their spare time to perfect the chosen sheep.

The students learn to trim their coats, halter break, lead and stand the sheep as well as the daily routine of watering and feeding. Students showing sheep also get to compete in the Junior Handler and Junior Judging Competitions.



FOR SALE

SUFFOLK STUD RAM
TIMOR BLOODLINE

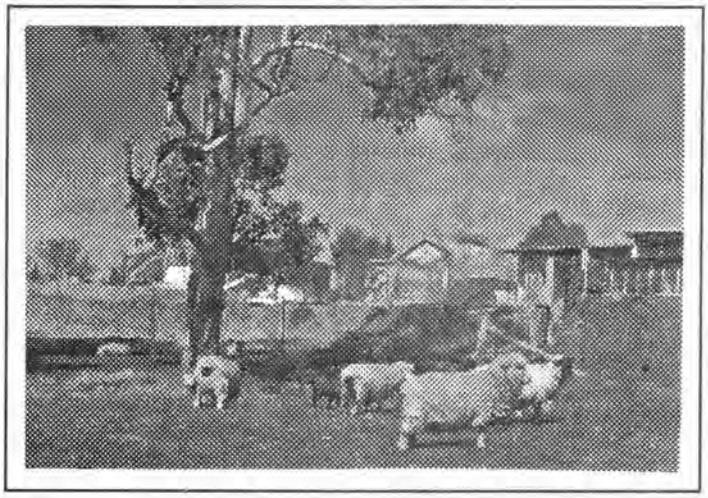
$200

Contact **Mrs Jemima Finlayson**
Moss Vale High School
Ph (02) 48681717
Fax (02) 48682787

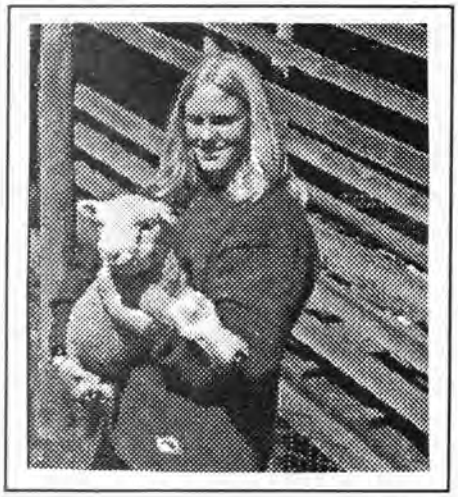
With help from Mrs Jemima Finlayson and other local sheep stud owners, we are able to show the sheep with confidence and ability. From these shows the school has received numerous ribbons as well a Champions and Reserve Champions.

The school also runs 15 Poll Dorset ewes and a Poll Dorset ram, which have also been bred at the Ag. plot

Alex Holdsworth, Year 10 Agriculture student.



Poll Dorsets & Suffolk
Ewes & Lambs



Amy Fisher
Year 10 Agriculture Student

STEER SHOWING

Steer Showing has had a long and successful history at Moss Vale High School.

At the end of each year, cattle stud owners in the Southern Highlands, donate four steers for Year 10 students that have chosen Agriculture as their elective to take an opportunity to prepare and show them at a variety of shows, including Gunning, Crookwell, Robertson, Moss Vale and the Sydney Royal.

The breeds of the steers usually consist of Shorthorns, Limousin, Angus and Murray Greys. These normally arrive at school in late November.

1997 was a very successful year for cattle handlers from Moss Vale High School - six students represented the school and competed against various steer breeders and other schools. We achieved Champions, Reserve Champions, Firsts, Seconds and Thirds in both steer classes and in paraders competitions.



1997 Steer Show Team - Sydney Royal

The Sydney Royal Easter Show was the show that we were most proud of as we claimed a First, Second and Third in "School" and Open Classes.

Without the knowledge and help from various staff members and support from local breeders, our achievements would not have been possible.

Amy Fisher. Year 10 Agriculture student.

CURRENTLY

The Agriculture Faculty is in the process of constructing a nursery to propogate vegetable seedlings and native and exotic plants. This will be further enhanced with a hydroponics section, both of which will be fully operational in 1998.

Long term proposals include acquisition of Department of School Education land to establish a cattle enterprise and further fine-tuning of the school farm eg. outdoor classroom, aquaculture, viticulture.

Another Word from our Gold Sponsor -

COTTON FOUNDATION

COTTON AUSTRALIA

COTTON EDUCATION #2

Cotton Australia's education program is aimed at encouraging young Australians to carefully investigate for themselves all aspects of the critical issues now facing agriculture in Australia, to demonstrate that decision-making is oftentimes a difficult exercise, and to skill them for involvement in community-based committees and groups.

Here is another aspect of the program :

A **Farm Field Day** program has been designed to allow one or two classes to spend a day at a cotton farm investigating the many aspects of farming. This program begins with a quick tour of the farm to give students an opportunity to orient themselves with the aid of a farm map, again poses a hypothetical on video, moves through the decision-making stage, and sees the group break up into investigative workshop groups - whole of farm planning, irrigation, nature reserves, soil quality and crop rotation, water quality, harvesting and processing and so on. The groups then workshop a presentation on what they have learned in their group for the benefit of students in the other groups.

To arrange a Farm Field Day for your class, ring Shelley Spriggs on (02) 9319 3677.

Pre-farm visit reading and stand-alone **structured investigative projects** for the classroom are available in STUDIES magazine which is sent free of charge to every school in Australia. If you don't have access to STUDIES magazines in your school, call (03) 9500 2399 to order your free copies.

Student and teacher study materials, along with a 'front-end' to guide students and teachers to the information most applicable to different areas of the curriculum, are available free to charge from Cotton Australia. Call (02) 9310 3677.

Cotton Australia's world wide web site - **www.farmwide.com./au/nff/cotton/cotton.htm** - carries a lot of general information on cotton growing in Australia; and we can be e-mailed for further information on shelleysp@msn.com.

* * * *

BOOK REVIEW

BY PHIL ARMOUR (YASS HIGH SCHOOL)

MY MOUNTAIN GARDEN

Recently I received copies of four books written by Alec Buford, a retired gentleman from the Blue Mountains, which were a collection of his accumulated knowledge and experience in gardening.

The set of four books are a treasure trove of information about gardening, particularly in the areas of, plant nutrient requirements, potting mixes, cutting, fertilisers, as well as detailed treatment of pH, buffering and liming of soils.

The books come highly recommended as reading for Hawkesbury Horticultural College and the University of Western Sydney. John Courtman (Senior Head Teacher - Horticulture at Richmond TAFE), provides an endorsement of the books as highly recommended reading for his students in the areas of soils and related horticulture.

My own reading of the books makes me conclude that they are well researched and include ample diagrams and tables that make accessing the information easy. The whole series is written in an easy informal style in keeping with the background of experiences the author is using to illustrate the content.

Each book is of about 40 pages and the whole set of four books comes at the bargain basement price of **$20 plus postage.**

Send orders to:- Allan Davidson
15 Central Lane,
Wentworth Falls. NSW 2782

If you wish to purchase these books they can be ordered from:-

Alternatively they may be purchased separately for $5 each plus postage.

1.	Some notes from My Mountain Garden	-	This Wonder Ash (A. Buford) Silicon and Carbon in Horticulture Water holding Capacities, Wettability Agrichar and it's Uses
2.	Notes from My Mountain Garden	-	Composting, Mulching, Potting Mixes, Propagating and Potting
3.	Notes from My Mountain Garden	-	Fertilisers
4.	A Companion to My Mountain Garden	-	General Soils Information Soil pH Pests and weed control Porosity and water holding capacity

NSW HSC ON-LINE PROJECT

The last edition of BAAT (Edition 7), contained an article about the NSW HSC Online Project. I would like to encourage both teachers and students of Agriculture to use this resource. I understand that access to the Internet is often difficult within schools due to both lack of time and facilities.

One suggestion I have to assist teachers in their use of the Internet, is to avoid trying to let students access the Internet at schools as a large group. Accessing the Internet as a group is generally impossible due to the lack of computers on the Internet within each school. Therefore two avenues are available once the teacher has familiarised themselves with appropriate web sites:

- Download the information from the web site onto disks. This can then be used by the Agriculture class.
- Download the information from the web site and print it off. The hard copies can then be used by the Agriculture class.

Very valuable, up to date information can be found on the Internet and students, particularly HSC students, should be encouraged to access this very useful resource. Of course I highly recommend the HSC On-line site to you, along with other Agriculture sites.

You can find HSC On-line at, http://hsc.csu.edu.au/

To give you an idea of the type of resource material you can find at HSC On-line, I have included just one of the activities from the site.

Sally Bannerman
56 Tecoma Drive
Glenorie 2157
Tel/fax: (02) 9652 129
email:salndon@ozemail.com.au

The following -

"Biometrical Exercise"

is a sample from

"HSC ON-LINE"

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

A BIOMETRICAL EXERCISE

Name .....

Lamb Number	Sire-Breed A (kg)	Sire-Breed B (kg)
1	54	60
2	41	53
3	42	49
4	51	62
5	50	60
6	43	52
7	54	46
8	36	57
9	58	53
10	46	51
11	43	57
12	44	66
13	48	68
14	50	38
15	47	37
16	41	63
17	58	59
18	58	43
19	63	51
20	44	42
21	54	40
22	56	51
23	52	65
24	46	36
25	46	53
26	52	59
27	48	35
28	41	49
29	41	62
30	39	61
Mean		
Standard deviation	6.7	9.5

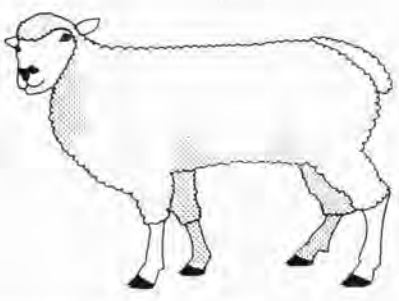
In this biometrical exercise you will examine the results of growth trial, measuring the liveweight gains of two groups of lambs up to 24 weeks. This trial was part of a series of trials examining the differences in carcases of lambs sired by different rams. These results are from one of the trials.

Aim: To determine the difference in liveweight gain between two groups of lambs sired by different rams.

Method:

* All lambs were approximately the same age (within one week of each other.)
* All lambs were from ewes with similar history, i.e. Border Leicester x Merino crosses of similar age with similar nutritional history.
* The ewes were randomly allocated into two groups which determined which ram they were mated to.
* The ewes were all provided with similar nutrition throughout their pregnancies.
* Prior to lambing all the ewes were put into one paddock (both groups) and all ewes and lambs were kept together until weaning. Once weaned, all weaners were kept together for the duration of the trial.
* The weaners were weighed and fat scored at 24 weeks old.
* Both groups of weaners were of mixed sexes, all ram lambs were castrated at marking time.

Results: The table shows the liveweights of the lambs at 24 weeks old (kg).







Conclusion:

1. Suggest a method of randomly allocating ewes to each group.
2. Calculate the mean for each group.
3. Compare the means for the two groups.
4. Which group has the better mean for liveweight at 24 weeks?
5. Compare the standard deviations for the two groups.
6. In what way is the standard deviation a useful statistic to know, (what does it tell you about the results)?
7. List three features of the experimental design that contribute to standardisation of conditions in this trial.
8. What is the variable that is being examined in this trial?
9. What other information would be useful for drawing some conclusions about any differences in carcases from lambs sired by the different rams?
10. What recommendations for other and further trials would you consider useful in examining the effects of different sires on lamb carcases produced?

Answers:

1. There are many methods of randomly allocating ewes to the two groups. One suitable one would be to run the ewes through a race, drafting every alternate ewe into one group and the other ewes into a second group. Any method that is random and helps reduce bias and chance, to hopefully gain a more reliable and representative set of results would be acceptable.
2. Sire Breed A mean = 48.2 Sire Breed B = 52.6
3. Sire Breed A has a mean of 48.2 kg while Sire Breed B has a mean of 52.6 kg.
4. Sire Breed B has a better mean liveweight than Sire Breed A.
5. Sire Breed B has a greater standard deviation than Sire Breed A. This means that the liveweights for Sire Breed B had a larger spread or variation about the mean than the liveweights for Sire Breed A.

6. The standard deviation is useful because it tells you how far the results are spread about the mean. In many trials it is desirable to have results that have small standard deviation, this means that the results are all closely clustered around the mean, producing a more desirable result.

7. Some of the features of this experimental design that contribute to standardisation of conditions include:

- all lambs of approximately the same age
- all lambs were from ewes with a similar history
- all ewes were provided with similar nutrition
- all weaners were provided with similar nutrition
- all ram lambs are castrated

8. The variable being examined in this trial is the effect of breed of sire.

9. Other information that would be useful for drawing conclusions about the differences in carcases from lambs sired by different rams, would be:

- fat scores
- after slaughter, carcase weight
- after slaughter, eye muscle area measurements

10. This trial would need to be replicated many more times over, both with these sires and with other sires of the two breeds involved, to produce results that could be accepted and used with confidence. Information also needs to be provided about how these sires performed within their own breeds.

FOOD AND AGRICULTURE IN THE CLASSROOM
RESOURCES FOR SALE

1. Resource Books @$25.00
Pride in Victorian Farming (available now)
CSF level 4.
Food for Thought (available October '96)
CSF level 5.
Paddock to Plate (available December '96)
CSF level 6.
2. Video Programs @$35.00
Topics include Agriculture in the Classroom, Space-Age, Agriculture, Landcare, Orchard Management, and Breeding Techniques.

Contact Barry Semmens, FAITC. Tel. 058 335302
or Email - semmemsb @salty.agvic.gov.au

AGRICULTURE It's Future Sustainability

A REPORT PRESENTED AT THE 1997 BIENNIAL CONFERENCE

Jim Pratley
Professor of Agronomy
Charles Sturt University
WAGGA WAGGA NSW 2678

Before I discuss the topic at hand I thought you might be interested in some background on Charles Sturt University, one of the new Universities in Australia.

It is a rural University with campuses at Wagga Wagga, Bathurst and Albury. It currently has more than 20000 students enrolled making it a middle sized University. It also teaches off-shore including New Zealand, United Kingdom, Portugal, Malaysia and Hong Kong. Charles Sturt University is the largest distance education provider in Australia.

The School of Agriculture is one of the largest Schools of Agriculture in Australia. The intakes per year are listed below:

	Undergraduates	Distance Education	Full Time
•	Agriculture	50	50
	Equine Science	50	30
	Environmental Horticulture	30	15
•	Postgraduate Diploma/Coursework	20	
	Masters in Agriculture		

In 1990, the School took its first postgraduate research student and in 1997 that number currently studying has risen to over 30. We have built up networks with other institutions such as New South Wales Agriculture and CSIRO to ensure these students get the best of supervision and facilities.

Charles Sturt University is currently part of three Cooperative Research Centres, namely Cooperative Research Centre for Viticulture, Cooperative Research Centre for Weed Management Systems and the Cooperative Research Centre for Sustainable Rice Production.

Agriculture - The Future

In order to get some perspective we need to ask the question 'Where have we come from?' In the 1960's we can identify that

- wheat was grown as a monoculture in conjunction with a pasture phase
- commodity prices were buoyant and there was considerable government support
- crops were grown in cultivated seedbeds and there were no herbicides
- fertilizer inputs were 1 cwt/acre of single superphosphate and yields were 8-10 bags/acre
- all stubbles were burnt
- advice from the Department of Agriculture was free
- production was based on family farms
- there were no computer/faxes/photocopiers

What is happening now?

In the 1990's

- greater emphasis is placed on rotations
- there is grater market focus (including the 'level playing field' mentality)
- there are many degradation issues and agriculture now has to address the environmental imperative
- minimum cultivation is the norm but herbicide resistance provides a threat
- inputs of multiple nutrients are necessary and the levels are high
- crop yields are now 5 to 6 t/ha
- crop stubbles remain a problem but there is greater emphasis on their management
- we are entering the phase of user pays
- there are fewer farms and off-farm income is more significant
- technology has become a necessary part of the process
  - ie • computer/fax
  - • GPS, NIR, soil testing, neutron probes, remote sensing
- objective measurement is necessary as a basis of informed decision making
- governments of all persuasions have largely abandoned rural Australia

The Environmental Problems

These remain a significant challenge:

(a) Soil Acidification - more than 14 million ha are affected and this costs the nation more than $300 million.

(b) Soil Salinisation - more than 4.7 million ha reduced by land management practices with production losses of the order of $100 per ha.

(c) Water Resources - are now identified as limiting but are also suffering from pollution of salt, nutrients and sometimes pesticides. Algal blooms are a common part of the seasonal occurrences.

(d) Weeds - cost Australia $3.3 billion in lost production and control measures. More than $500 million is spent on herbicides.

(e) Pesticides - create anxiety in the population and perceived health problems are an issue. Thus pesticide residues have become important whilst pesticide resistance affects productivity.

(f) Urban impacts - are often overlooked but make significant contributions through contamination by sewerage, waste disposal outflows and contribution to urban salinity and watertable.

(g) Soil Structure - some 87 million hectares are eroded in Southern Australia and there are 20 million hectares with structural decline.

Farm Productivity

- Quality control will become increasingly important. Markets will demand more specifically. Pesticide residues will be an important issue.

- Information management will be an important item and the role of the Internet will be critical to this.

Our Role as Educators

At all levels of the education spectrum we need to address the problems:

1. There needs to be an image change for agriculture. It has to be seen as

    - positive
    - modern
    - exciting and
    - important

2. There needs to be a change in the perceptions of the players. This includes:

    - acceptance of user pays
    - importance of environmental sensibility
    - the need for objective measurement
    - a focus on quality

As educators we need to work together to encourage students to achieve and to choose agriculture as a career. The industry needs to be well educated to cope with future demands.

Agriculture has a future. It is our future.



ACROSS THE EDITORS DESK

We are receiving a lot of information of a technical nature or articles that are too lengthy to publish fully in BAAT.

Here is an outline of the material received and contact numbers for copies if you are interested.

- **Technology Education: An Environmental Perspective by Julie King ($2.50 will cover copying and postage)**

- **Field of Wishes: An Educational package on animal behaviour - a PIGVISION PROJECT.**
  * **useful reference material ($8 to cover copying & postage)**

FOR THE ABOVE TWO PUBLICATIONS contact Craig O'Brien .....

- **NSW Agriculture Bruce West CB Alexander College Tocal**

See article on various publications available on following pages.

TOCAL - BEEF



Dear Craig

How's it going? Sorry I haven't been in contact sooner, however, our C.R.C. Beef extension team is only just getting off the ground. To refresh your memory I will briefly outline the relevant aims of our C.R.C. Beef extension team. They are:

(1) To increase awareness of the C.R.C. and its work to N.S.W. Ag. teachers.

(2) To establish a flow of information from the C.R.C. to Ag. teachers. [once our extension team has deciphered all the scientific reports into a readable format - happening soon].

(3) To explore possible avenues of teacher training via workshops etc. [Staff at the C.R.C. Armidale are keen to conduct workshops/seminars and are prepared to travel - Perhaps the next Biennual Ag. Teachers conference may be an opportunity. Any ideas?]

In addition to the above I will include a brief list of possible resources which you may already know about but may be of use such as;

(1) Readable publications from the C.R.C. I have included some of the booklets from the C.R.C. which I have found useful. These are available in limited numbers by contacting

Faye Hughs
CJ Hawkins Homestead
University of New England NSW 2351 ph (067) 733291 or
Fax (067) 733500 (Approx $25 includes postage)

(2) Beefline. I have include some pamphlets about this service. There is a nominal charge for the service, however, they go easy on school pupils doing assignments etc.

(3) TAFE modules. There are a large range of home study, stand alone modules on most aspects of agriculture.

I have just purchased the 4 beef modules which are very useful. The information is up to date and easily adaptable for teaching purposes. These modules were put together by the C.R.C., NSW education and training foundation, and TAFE. The beef modules are as follows;

Beef cattle assessment $25
Beef cattle handling facilities $35
Beef cattle marketing $25
Beef cattle Quality $45

As mentioned previously there is a large range of modules on agriculture. These are available from

Print West
Orange College of TAFE
March St
Orange 2800

Or phone (063) 915662 Fax (063) 915613.

(4) Their is a E-Mail network of Australian Ag. Teachers organised by a Mr Rod Thompson of the DPI QUEENSLAND. Its mission is to improve communications between Aust. Ag. Teachers, policy makers, and information brokers such as Departments of Agriculture. Membership is free. To subscribe to Aussie- AGTEACH-Net:

email to: majordomo @ lists.isd.dpi.qld.gov.au
Subject: <leave blank>
Text : subscribe AUSSIE - AGTEACH - NET
(then send the message)

If unsuccessful then Email Rod Thompson at:
thompsonr@dpi.qld.gov.au

Yours sincerely

Bruce West

You can contact me on either phone (049) 398825 or 1800025520 (free call) or E - Mail westb@agric.nsw.gov.au

WARNING!!!

IF YOU
HAVE NOT PAID YOUR SUBS.

THIS WILL BE YOUR LAST BAAT

STUDENT PRACTICALS

Our thanks go to -

1. Rowland Clarke of Canberra Grammar School who has provided three Yr 12 practicals.

   (a) Wool quality - alcohol extracts
   (b) Meat quality
   (c) Wool quality - fibre diameter

He tells us the meat practical works best with the colour charts provided by the AMLC for fat and meat colour. A thank you goes to Ingrid Foster, a laboratory technician at C.G.S., who helped develop the units.

2. Allan Grace, Melville High School, Kempsey sends a unit of work presented as a design brief featuring worm breeding, including design brief and activities. Our thanks to Allan.

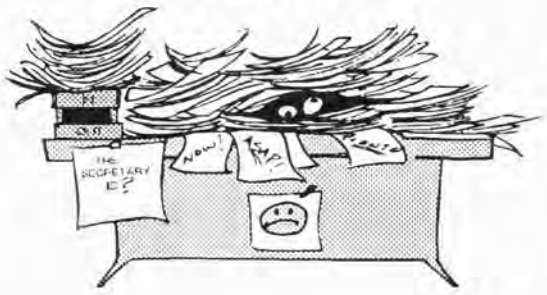
Another REMINDER

Send in activities/lessons/experiments that work

We want to publish them in the next issue

SEND THOSE PAPERS INTO THE EDITOR

PLEASE!!!

There's just never  enough paper work ....

Name .....

YEAR 12 AGRICULTURE - WOOL QUALITY PRACTICALS - ALCOHOL EXTRACT (Grease Content) TEST

Aim: To determine the grease content of a sample of wool.
N.B. methylated spirits is flammable (highly).

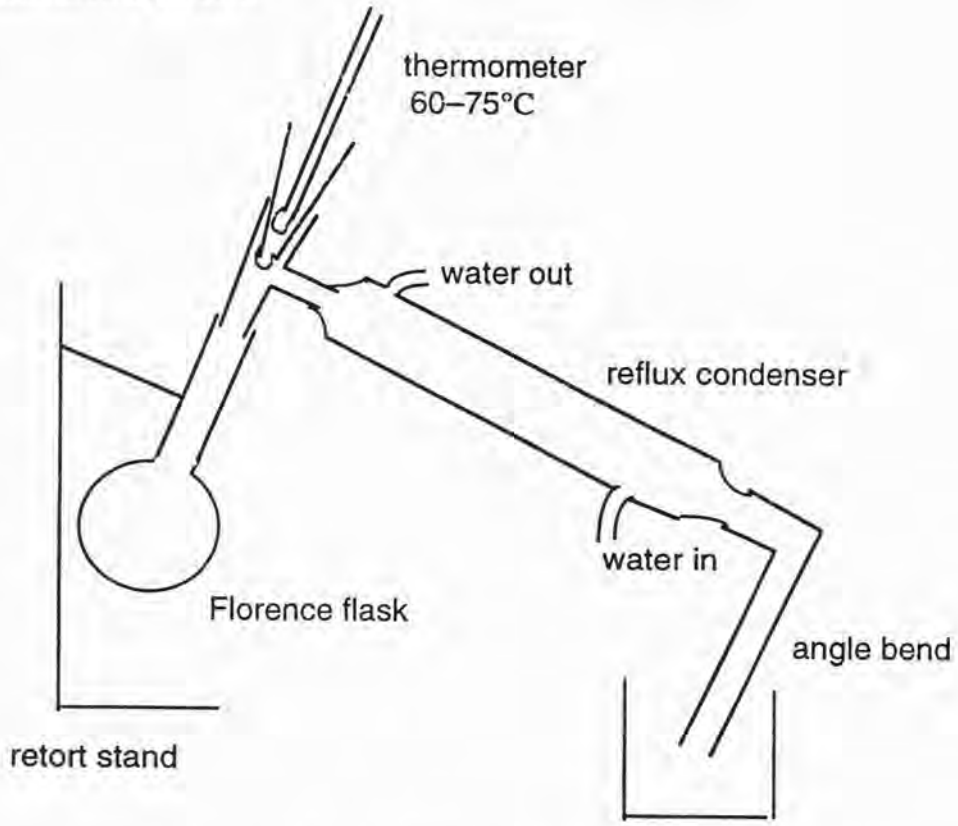
Method.

1. Place 10g of greasy wool in a 700 mL beaker.

2. Add 25 mL of methylated spirits and heat gently approximately 65°C for 25 minutes on a hot plate or a low blue bunsen flame. (Occasionally stirring).

3. Weigh a florence flask and then add the solution of methylated spirits and grease to it.

4. Set up the following distillation apparatus.



5. Distil the mixture until there is about 10 mL left in the bottom of the florence flask. (Use a low blue flame.)

6. Leave overnight for the remainder of metho to evaporate.

7. Reweigh the florence flask.

Results

$$\text{Grease \%} = \frac{W}{10.00 \times 100}$$

where W = weight of grease (g)
= florence wt 2 – florence wt 1
| |
part 7 part 1

Discussion

- errors
- What are the major sources of grease in wool?
- How is grease normally removed from wool?
- Without testing wool how can a wool classer recognise the amount of grease in a wool fleece?

Conclusion State your result.

DUE DATE

Name .....

Year 12 Agriculture

Meat Quality Practical

Aim.
To determine the quality of four different samples of beef.

Method

1. Visually appraise each of the four samples for:

   (a) Meat Colour - light pink, pink, light red, red dark red (record whether the colour is even).

   (b) Fat Colour - white, cream-white, creamy, creamy, creamy-yellow, yellow

   (c) Bruising - proportion of meat that is bruised.

   (d) Marbling - 1 - no marbling
   7 - most marbled (use a rank order)

   (e) Fat depth - measure the maximum fat depth on the steak. (from the outside to the meat).

2. Record the results in a table with information about the meat: animals age, carcase, weight, type of cut and its location on the animal.

3. Cook the steak. Rank (1-5) the steaks according to their tenderness, strength of taste, juiciness, overall appeal. Record the results in a table.

Discussion - Errors

(a) Briefly describe the factors which affect the colour of the fat.

(b) Briefly describe the factors which affect the degree of marbling of beef.

(c) Briefly describe the factors which affect the colour of the meat (include bruising).

(d) Describe which steak you enjoyed most and why.

Conclusion

State which factors affect meat quality.

DUE DATE

Name .....

Year 12 Agriculture --- Wool Quality Tests

FIBRE DIAMETER

Aim

To determine the mean fibre diameter and the standard deviation for a sample of scoured Border Leicester and Merino Wool.

Method

1. Measure (using the video microscope) and record 50 different fibres.
2. Calculate the mean.
3. Record the range.
4. Calculate the standard deviation.

$$\sigma = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n}}$$

where 6 = standard deviation
x = fibre diameter (microns)
x = mean fibre diameter
n = number of observations (50)

Results

Discussion
- errors
- the significance of fibre diameter to the fabric industry.
- how can a wool classer visually appraise fibre diameter?

Conclusion - State your result (see the aim)

STAPLE LENGTH

Aim

To determine the mean staple length and the standard deviation for a sample of Border Leicester and Merino Wool.

Method

1. Measure (using a ruler) and record the staple length of 50 different staples.
2. Calculate the mean.
3. Record the range. Calculate the standard deviation.

Results

Discussion
- errors
- How does staple length affect the manufacturing process?
- What would be considered to be an average staple length for
  (a) Merino, (b) Border Leicester
  for 1 years growth

Conclusion

DATE DUE

WORM BREEDING

DESIGN BRIEF:

1. To raise and breed worms in a unit designed and made by students. Market the unit.
2. Establish a permanent worm breeding unit on the school farm for the recycling of wastes

ACTIVITIES:

1. Research 3 important uses of worms to the environment.
2. Write half a page explanation for each important aspect of worms researched above.
3. Rule up a table listing 5 important or distinguishing features for two types of worms.
4. Source a market for your worm breeding unit.
5. What market requirement will your system fulfil.
6. List 7 requirements needed in the design of the worm breeding unit and why are these requirements important.
7. Research different units that may be suitable for raising and breeding worms.
8. Design a worm raising and breeding unit.
9. Draw a fully labelled plan of the unit.
10. Build or set up the unit ready for worm establishment.
11. Research food requirements and source a means of supply.
12. Rule up a table showing components of a suitable diet, where sourced and other comments.
13. From a population of worms supplied select a sample of 100 worms.
14. Graph the range of sizes measured in the population.
15. Weigh your worm sample.
16. Establish your worms into the unit.

17. Devise a management schedule for your worms. List down the major components of this schedule.

18. Monitor the growth and development of your worm population.
Observe, measure and record your results.

19. Evaluate the effectiveness of your worm breeding unit by comparing data from other groups.

20. Market your worms.

21. Carry out a financial analysis of your project and the combined class project.

22. Carry out a P.M.I. on your project.

23. Computer work (note: to be done throughout the project).

    1. Sign/Poster.
    2. 1 page outline of your design brief.
    3. Financial analysis.
    4. Plan or diagram of your breeding unit.

PLEASE !!!

Complete Animal Care & Ethics Committee Survey
and
Fax to Phil Hurst

Remember to Register for the National Conference
- look for registration form in this issue.

Send in your Activities, Practicals
to make BAAT #9
A Great Agricultural Resource for all Agriculture Teachers

Anyone who has not paid their fees -
DO SO NOW ....



This is your last BAAT if you have not paid your subscription to Phil Armour!

AGRICULTURE offers exciting opportunities

NSW Agriculture's Colleges offer a range of courses in the food and fibre industries

- Full time residential courses
- Part time courses (traineeships and apprenticeships)
- Home study courses
- Short courses

New Courses

- **National Diploma and Advanced Diploma in Rural Business Management**
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- **Certificate in Rural Skills (Aboriginal Communities)**
- **Landcare Certificate**

Agricultural College courses are for:

- School leavers
- Land holders
- People working on farms
- New entrants to agriculture
- Aboriginal communities
- Food and fibre producers

NSW Agriculture



FOR FURTHER INFORMATION

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Yanco NSW 2703
Ph (02) 69512700

C B Alexander Agricultural College
Tocal,
Paterson NSW 2421
Ph 1800 025520