



Hazelnut Growers of Australia Ltd.
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Hazelnut Newsletter Number 11 – July 2005

Message From the President

Welcome to Newsletter No 11.

I have heard mixed results from the 2005 harvest - certainly our crop was down on previous years.

During the past month or so, many regions received their first soaking rain for several years. Water has become an expensive resource and government has increasingly put the onus for responsible water use on farmers and growers.

Better knowledge of the interaction between plant demand (at various ages), soil type and profile, delivery method and frequency, and practices such as mulching - result not only in more efficient water use but improved growth and yield.

HGA feature a briefing on NSW DPIR's 'Waterwise on the Farm' course in our Annual Conference. Where similar courses exist in other States, we will provide contact details via the Newsletter, as we learn of them.

The very late start to winter delayed onset of dormancy. Contrary to expectations, it also advanced commencement of pollen shed and female flowering. This has potential to effect nut set, and we touch on this later in the newsletter.

Planning is well advanced for **HGA's Annual Conference and AGM in Canberra, October 15th & 16th**. The venue, 'Rydges Eagle Hawk Resort/Conference Centre', on the Goulburn Canberra Road, has been used before and offers excellent opportunity for break-out rooms and indoor/outdoor exhibitor space. The conference dates clash with the 'Floriade Festival' so book accommodation early – contacts at end of Newsletter.

As one of the organisers, I'm pleased to state that our Annual Conference Program offers something for everyone – whether you're investigating growing hazelnuts, have a 'farm-gate' enterprise, or are (or aim to become) a large-scale commercial grower.

Our speakers include several experts. Established growers will talk on their experiences; plus there will be opportunity to view and discuss with exhibiting sponsors various products and services available.

In the Christmas 2004 Newsletter, I spoke with enthusiasm of the diversity and energy of HGA Council elected in Tasmania. The Council met for an entire day near Canberra in February, and we will benefit from their vision and hard work:-

a) Changes to HGA Ltd Articles of Association

Thanks to Council member, Lyn McRae, the changes proposed are accompanied by an explanation.

If you require the Articles of Association be posted or e-mailed to you, or if you have a concern - please advise the Secretary

in writing **As Soon As Possible**, so that members can be circulated of your concern prior to the AGM.

b) Pre-conference HGA Council visits.

The agro-policy environment in which HGA operates has become more complex.

To ensure that your Council members are as well briefed as possible, I instigated a pre-AGM Council tour for Friday 14 October. It includes briefings by the National Farmers Federation, Department of Agriculture, Fisheries and Forestry, and the CSIRO Department of Plant Health.

Anyone who is considering nomination to HGA Ltd Council is welcome to attend. For details please contact me, Stewart Deans, President. Tel: 02 6266 2468

c) HGA Members Survey

Council decided to expand the scope of the Annual Survey after long debate and consultation with researchers on the type of information that they require.

Jim Clement, representative for Victorian Southern Region, took responsibility for the survey and has done a great job. He is also responsible for data entry.

Jim has asked HGA Research and Development Committee to advise on the content and form of information required from the survey. The answers will assist HGA's approach to a Hazelnut Industry Development Plan, highlight research needs and support HGA funding applications & submissions.

Survey results will also help HGA improve the services that it provides to members. I would like to stress that information contained in the survey is confidential, and encourage you to complete the survey if you have not already done so.

I look forward to seeing you in Canberra at the Annual Conference of Hazelnut Growers of Australia Ltd.

S. Deans, President.

BRAIN TEASER

Pictured are partly eaten catkins.

Who or what was the culprit?

It pays to keep a keen eye out in the orchard for unexpected guests, pests and diseases, and seek identification.

Answer's on page 4



Bio-Security

By Stewart Deans

Australian Nut Industry Council (ANIC) is still in discussion with Plant Health Australia (PHA) regarding the development of Bio-security Plans for the Nut Industries.

Current advice from ANIC is that ANIC's membership in PHA covers the individual nut industries for the development of Deeds of Agreement.

These Agreements, to be negotiated between the grower organisations and the Australian Government, require that growers pay back the Government (through a levy) the cost of pest or disease incursion - should one occur.

In return the Government would take immediate action to control any outbreak and compensate farmers for any resultant loss.

The levy cost would be borne by all growers, not just HGA members, and the maximum amount to be repaid for any incursion would be capped - based on total Australian production.

For the hazelnut industry, the first part of the process has been the identification of major pest & disease threats to the Australian hazelnut industry, and development of a Deed of Agreement.

The Deed of Agreement will provide plant industries with advice on how to guard against incursion, how to recognise relevant pests and diseases and who to call if something unusual is spotted.

HGA Ltd has identified four major pest and disease threats, and lodged a submission with Biosecurity Australia Ltd. Clem and Vanessa Cox represented HGA at a HAL/PHA workshop in Orange. This was strongly attended by research and senior extension personnel, and explored the requisites for effective prevention, surveillance, identification and control of an incursion.

HGA is contributing to this work through our membership contribution to ANIC.

Eye on Research

Pest and Diseases Analysis

HGA has pledged co-funding for an Analysis of Hazelnut Pests & Disease in Australia. The research will be undertaken by Lester Snare, DPIR Agricultural Institute, Orange, NSW. We understand the project has moved up the approval process - final word is awaited as we go to print.

HGA understand that the Analysis will result in a Pest and Disease Handbook - both hard-copy and digital, so that it can be made available through HGA web-site.

Conal Material

A project to develop a database of the key characteristics of hazelnut cultivars has commenced with HGA funding support.

The work is being undertaken by Basil Baldwin, Faculty of Rural Management, Charles Sturt University, in association with Oregon State University. This important work will be outlined during HGA Annual Conference.

The database will enable the industry to verify the identity of clonal material, and is just one of many outcomes from the Hazelnut Variety Assessment trials.

Hazelnut Variety Assessment

The long running RIRDC funded trials are drawing to an end and will be concluded by field days at three of the trial sites – Moss Vale, Ovens Valley and Orange. *See Diary Dates.*

The final conclusions from this project will provide both existing growers and new entrants to the industry with a great deal of valuable information.

HGA now needs to consider the value, as part of our research and industry development commitment, of retaining one or more of the trial groves – which are now nearly ten years old.

HGA is seeking suggestions from members on future use of the sites, eg sale of crop, irrigation and/or fertiliser trials, as we will have to provide funds to keep the groves going.

Industry Development Plan

In order to apply for any more funding from RIRDC the Hazelnut Industry needs to have an Industry Development Plan involving the participation of **all** industry players from grower to processor and retailer.

The Research & Development Committee will meet shortly to consider the role that HGA should take in the development of such a plan.

Hazelnut Growers Handbook Revision

By Peter Wheelwright

The Growers Handbook needs up-dating to reflect changes and developments in our industry. The following is a draft list of areas that HGA Council considers need revision or addition to the handbook:

Results from varietal assessments at the trial plots.
New section on cracking, value-adding, food handling, packaging, storage and shelf life under various packaging and storage conditions, & storage pests.

Propagation of suckers

Irrigation techniques, including pulse irrigation, incorporating information from 'Waterwise on the Farm'.

Any Member wishing to submit a suggestion or to a draft an update on any section in the Handbook is encouraged to submit details to pwheelwright@bigpond.com as soon as convenient.

It is planned that the finalised revision of the HGA Growers Handbook will be completed by January 2006.

DIARY DATES

Council Familiarisation Tour, Canberra, Friday Oct 14th

HGA AGM & Annual Conference, 15 & 16 Oct

NSW Southern Highlands Field Day, Moss Vale, Nov 20

Vic NSW Border Region Field Day, Myrtleford, 11 Feb 06

NSW Central West Region Field Day, Orange, TBD

Vic Southern Region Field Day TBD

A LATE START TO WINTER

By Vanessa & Clem Cox

The worst drought in history and periods of extremely hot weather created difficult growing conditions for both growers and propagators.

More recently warm autumn and winter days and lack of cold nights delayed leaf-fall, and the true dormancy/hardening off period in which bud scales form protecting the primordia for next season's leaves. (Nutmower, J Kenez, Sept – Nov 1999)

Dates for onset and duration of pollen shed and female flowers have certainly been affected. Reports suggest the effect on different varieties is disproportionate, and indicates that something other than accumulated chill hours is at play.

It will be interesting to learn what the consequences will be, and we suspect that results will underline the wisdom of having a spread of early, mid and late pollinators – relative to the female flowering period of the main crop variety

At Bungendore, near Canberra, Stewart reported Atlas female flowers in May, with flowering on most varieties advanced by two weeks to a month.

At Porepunkah, near Mt Buffalo, Peter said flowering had commenced early July but Barcelona female flowers did not start until end July when most early pollen had finished. However, they will be 'picked up' by Halls Giant.

HARDWOOD SAWDUST AS MULCH

The long dry means materials normally used for mulching, such as pea-straw, cereal straw or hay, are 'going down the necks of live-stock' – and either not available or only at exorbitant cost.

For the past six years, we've mulched with hardwood sawdust to a depth of 2 inches. The saw-dust is relatively fine and comes from a mill sawing native timbers.

Ideally, the sawdust would be aged, but we've observed no detrimental effects from using comparatively fresh hardwood sawdust – other than orange stained clothing and hands - plus it takes longer to de-compose than conventional mulches.

Other growers have mulched with weed-mats or even carpet cut-offs with success – though these could provide refuge for slugs and snails.

Why is mulch so important? Hazelnuts are members of the birch family. Ever tried digging under a silver birch?

We've observed that whips start sending out a fibrous mat of roots about 2 inches below soil level quite early in their growth. After one or two years, a deeply planted whip (9 – 12 inches) still has its original set of roots, plus a higher fibrous set about two inches below soil level – the feeding mat.

The 'primary will' of a whip seems to be to establish this shallow feeding mat, and top growth does not 'take-off' until the desired ratio of root to top is established.

If challenged by size or seasonal conditions, top-growth is put on hold while the whip adjusts its top:bottom ratio. The application of nitrogen during this adjustment period promotes top growth placing even more stress on a struggling root system.

Furthermore, as the critical roots are relatively shallow, application of 'N' in inappropriate form may burn the roots. We recommend 'N' is delayed until the plant has 'settled down' and established some vigour.

Mulch does the following:-

- 1) Delays moisture evaporation and prevents 'crusting' and impermeability.
- 2) Encourages beneficial micro-organisms to rise higher in the soil, so they are active close to the feeding mat.
- 3) Reduces radiant heat to the soil and may reduce reflected heat on the young stem (sun-burn).
- 4) Reduces peaks between 'wet' and 'dry'. Maintains a more even soil moisture content, and may 'spread' the wetting pattern laterally over a wider area of soil thus establishing conditions to encourage lateral development of the feeding mat.

Hardwood sawdust can absorb a lot of water. Our experience is lower levels stay damp for some time, while the top forms a 'crust' which cuts down wind loss.

We suggest mixing saw-dust with water in a barrow or similar, and applying it 'wet'. This is not so important with delivery by micro-jet/spray which wets a larger area than drip. However, check that irrigation has been sufficient to soak the sawdust and not just the top layer.

We do not recommend pine-wood sawdust for mulch.

SETBACKS AND SUCKERS.

Here are a few tips that run against standard recommendations, but can result in a reasonable plant in a difficult year.

Do not strip all lateral buds before planting.

This reduces the plant's options to recover if top-growth is set back.

The image shows a plant that had little root when planted. The stem is painted white, and a 1 m rule is on the right.

A lower lateral developed from a bud, and its growth has outstripped the main-stem and it will be retained as the main stem. It is mulched in hardwood sawdust.

Allow the plant to settle down before removing suckers, & pruning or training.

Hazelnut plants show remarkable ability to recover, providing the option exists. When a plant is stressed, top



growth ‘shuts down’ and the bark hardens off. Meanwhile, the plant is re-channelling energy to a lower area which, once conditions improve, will grow vigorously.

Where whips are size or root ‘challenged’, removal of all lateral buds, and suckers diminishes the ability to recover.

Where a plant is struggling, we leave one or two suckers on and select the strongest the following spring when the plant has the benefit of an established root mass.

We’ve noticed that plants that are showing vigorous growth, tend to produce fewer suckers.

The strongest of two suckers will be retained as the main plant after they have successfully come out of dormancy.



HAZELNUT BLIGHT

Cuprox (copper oxychloride) is registered for use on Hazelnuts in NSW, SA and Tas. It is used as a preventative measure against infection by the bacteria causing the disease, Hazelnut Blight or Bacterial Canker.

Cuprox should be sprayed with Winter Oil as a sticking agent, until point of run-off.

Ideally the first spray is at start of leaf fall, to prevent the bacterium spores from entering fresh leaf scars, and again closer to dormancy. At least two further sprays are recommended particularly in wet years, the last being at bud-swell, (copper formulations can cause leaf burn).

Providing the preventative program is followed, many growers never see symptoms of hazelnut blight – though the bacterium may be present.

Infection and disease symptoms largely occur where plants are stressed, over-dry or poor drainage; or damaged – eg hail, stem rubbing, cold damage.

It’s foolish to think that the difficulty I had finding images of hazelnut blight symptoms suggest that it is rare.

To see an illustration of symptoms on hazelnut leaf and stem, visit www.agf.gov.bc.ca/cropprot/hazelnutblight.htm.

An overview of Hazelnut Blight by B Baldwin & L Snare was published in the Australian Nutgrower Sept- Nov 1997.

Vanessa and Clem Cox, July 2005.

Southern Highlands NSW Region Farm Walk Moss Vale Trial Site Inspection

Sunday 20th November 2005

Filbert Farms, Greenhills Rd, Werai NSW 2577

Couresty proprietors, Jim and Lauren Gleeson

Time: 10 am – 4 pm.

Time & Program content to be confirmed.

This is an important event for anyone considering growing in a maritime environment, and an opportunity to hear the experiences of two long established commercial growers.

Annual Conference & AGM Weekend.

Draft Program – subject to change in time & order

Registration (Coffee/Tea available).

Opening Comments

Harvest Equipment

Exhibitors & Sponsors

Marketing Experiences

Home Grown – Australian label

Clonal Material

Waterwise on the Farm

Sidebar #1 **Starting your orchard**

- Hazelnut economics
- Site Selection (wind, soil, pH)
- Pollinators – compatibility & timing

Sidebar #2 **Post-harvest**

- *Grading & Drying*
- *Value Adding*
- *Australian Specifications – in shell & kernel.*

Plant Health Australia – Biosecurity.

Annual Conference Dinner

Sunday – 9 am **Annual General Meeting**

Farm Walks .

Accommodation bookings – 02 6241 6033.

Conference Rate \$92.00 per room

ANSWER TO BRAIN TEASER NO 1

This little caterpillar first disguised itself as a bird dropping, and when disturbed used its claspers to appear as a rigid short stem.

Having munched through three sets of catkins, it was sent to NSW DPIR for identification.

Though not be a major pest now, a hatching could chomp their way through a lot of pollen.

