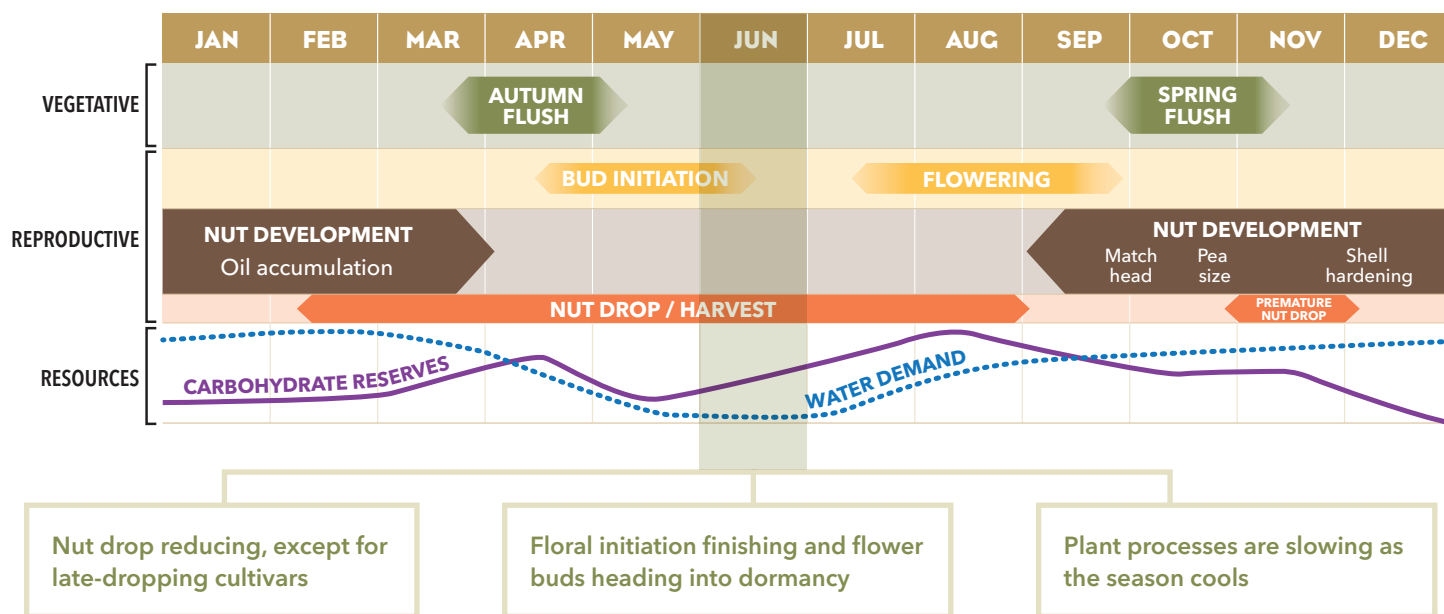


## Phenological Cycle



**Have you applied for disaster relief?** Grants and loans are available for eligible growers who were affected by severe weather at the start of the year. In **Queensland** the application period for disaster grants has been extended to **5 December 2022**. For information, head to [www.qrida.qld.gov.au](http://www.qrida.qld.gov.au). In **NSW**, the application period for disaster grants closes **4 September 2022**. For information, head to [www.raa.nsw.gov.au](http://www.raa.nsw.gov.au).

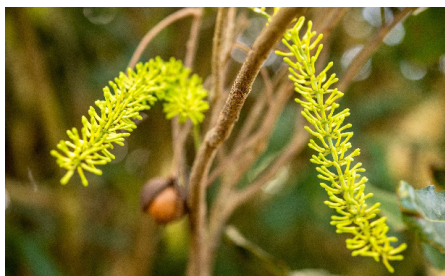
## Pest & disease



The rest of the year requires rigorous **pest and disease monitoring**, so get in early and book your **pest consultant** now for the season ahead. The impacts of this year's weather conditions need to be factored into your pest and disease management for the next few months, including:

- a **wet autumn and winter**, which will increase populations of many pests
- a **warmer** than usual **winter**, which means continued pest pressure
- increased **out-of-season flowering** which will support pests that aren't usually present
- **waterlogged, stressed** trees that are more susceptible to pests and diseases
- **restricted machinery access** to orchards.

**Lace bug** is prevalent in NSW, South East Queensland and Far North Queensland. Darker orchards with a closed canopy are more likely to



harbour **lace bug**, and hotspots are typical. If this sounds like your orchard, or your orchard has a history of infestation, check for **lace bug** on **out-of-season flowers**. Discuss an integrated approach with your pest consultant that includes long-term strategies like **canopy management**.

There is a new product registered for control of **lace bug**, Sivanto Prime (active - flupyradifurone). Maximum residue level (MRL) restrictions for export currently allow its use only for **lace bug**, but from 2023 the product will likely be available for control of other pests. Research by NSW DPI has shown that the active is as effective as diazinon for control of **lace bug**

but has a better integrated pest management profile and is safer for beneficials like **native** and **honeybees**.

Key messages for the safe use of Sivanto Prime are:

- a **single application** of the active at 50 mL/100 rate will ensure residue compliance for export
- only **one application** is permitted during a 12-month period
- the active should **NOT** be used for **other macadamia pests** until further MRLs are established
- not adhering to the use conditions is likely to lead to **consignment rejection** from your processor
- there is a **20-day withholding period** after use of the product.



Photo: Chris Fuller

## Crop inputs



There is still time to adjust **nutrition** before flowering, so discuss your **soil/leaf sampling results** with your consultant and develop a **nutrition program**. Your plan needs to be flexible and to consider crop load and weather events, which will significantly affect nutrient availability and uptake.

Ensure **boron** levels are adequate for flowering. If not, discuss the most appropriate application method (ground or foliar) with your consultant. Check you are applying the correct rates as too much **boron** is toxic to macadamias.

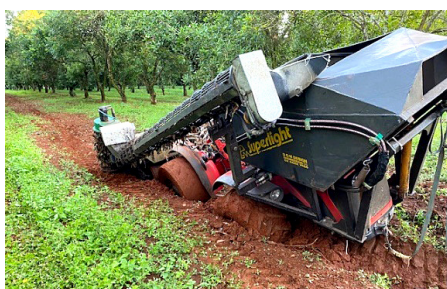
If you are in a **frost zone**, monitor weather conditions and apply a protectant such as **stem wrapping**. Stems, particularly of younger macadamia trees, are not frost tolerant. A small airgap between the frost guard and stem will help with insulation.

If you haven't done so yet, **order organic material** to be applied after harvest. You need a level, accessible site to store organic material that will **not leach or move** material to any water source.

As most plant processes slow in winter, **tree water demand** lessens.



## Mechanical



**Harvest** has been extremely difficult for many, and nuts are piling up or being pushed into the orchard floor. Necessity breeds invention and this is most definitely the case this season! Hand harvesting, vacuuming up nuts, using large blowers to move nuts into nets or piles to be scooped up - the creativity is endless but time consuming.

On flatter, less soggy orchards **one-way passes** without engaging the sweeper seem to be effective. If you have a lot of nut to pick up, consider disengaging your onboard **dehusker** if you have shed dehusking options. Everyone is balancing **harvest** with damage to the **orchard floor** that is costly to repair and has poor tree and environmental outcomes.

If you haven't been able to **harvest** and are concerned about how long nuts have been lying on the orchard floor, get your processor to take a **sample** ASAP. This will help you make an informed decision about **nut quality** and return on investment.

With increased field moisture this season, on-farm **post-harvest storage** conditions are critical. Nuts in storage require constant **air flow** (even for brief periods). Moist nuts stored in Nally bins or unventilated skips heat up quickly, providing conditions that are ideal for **germination, mould** and **brown centres**.

Are you running **silo fans** at night when it is usually more humid, inadvertently rewetting nuts? All these issues decrease quality and profitability. An automated **relative humidity controller** for **silo fans** is an inexpensive solution.

In a "normal" season, **tree shaking** benefits, including a shorter and earlier harvest, dealing with stick tights and husk diseases mean that using a shaker is practical. Care should be taken though if you have experienced significant **wet weather** as this can lead to tree barking, especially with machines that have an aggressive action. Self-driven **tree shakers** usually have better tree sensors and protection, but are big heavy machines unlikely to be operated successfully in a soggy orchard.

Are you ready for any **crop spraying**?

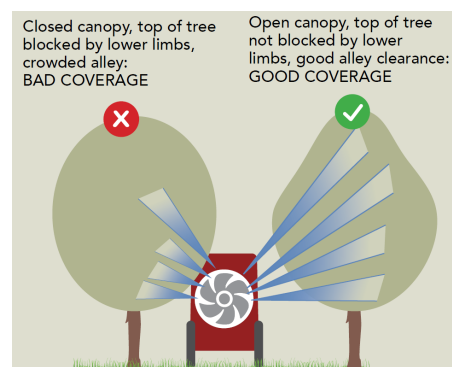
- **Calibrate** your spray equipment to suit the tractor you will be using. If you're not experienced, use a professional for this service. Crop protection and nutrient application sprays are expensive, and an uncalibrated setup will lead to waste, poor coverage, off-target



spraying and quality loss.

- **Service and clean** all your **spray gear**, replacing any worn equipment including filters, nozzles, pressure gauges, pumps and fans.
- **Nozzle selection** is essential and should match sprayer capacity and setup, tree size and canopy structure and, critically, the desired/legal droplet size, which is increasingly being mandated on the label.

**A general rule of thumb with effective spraying is ensuring you displace all air in the canopy with the sprayed product.**



## Management Cycle

Nut maturation			Flower initiation		Winter		Flowering		Preharvest nut drop		Shell hardening
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
							Pest and disease monitoring				
		Harvest									
Mowing/mulching					Tree shaking				Reduced mowing		
					Pruning and chipping						
					Applying mulch/compost/lime & gypsum			Cover cropping			
					Aerating/profiling			Mulching			
							Animal manures last opportunity				

### Management



Check you and your staff have valid **chemical application certification** and other required **licences**.

What source of **weather information** will you be using for spray decisions and records?

Check **tractor logbooks** and

**service intervals** and order any replacement parts well in advance for post-harvest operations.

Do you understand how **kernel assessments** on samples from your consignments are conducted and what this means for grower payments? There are two AMS run **kernel assessment workshops** in June that you can register for.

### The month ahead

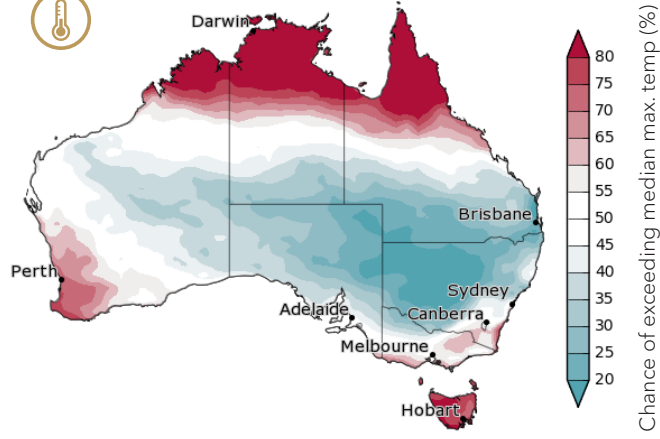
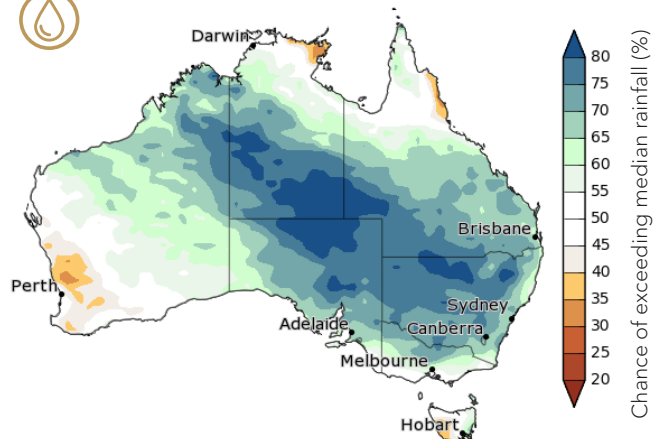


Book your **pest consultant** to monitor in July for **lace bug**, **flower caterpillar** and **flower diseases**.

Join us at the MacGroup events in your region, they will be held in:

- Queensland - 12 to 15 July 2022.
- NSW - 19 to 21 July 2022.

## BOM rainfall and temperature outlooks for July 2022



## Further Information

For more information, contact the AMS Industry Development Manager and/or your processor's grower liaison officer. Also, go to Industry Resources on the AMS website and search for fact sheets, research reports, Bulletin articles, case studies and more.

**Hort Innovation**  
Strategic levy investment

**MACADAMIA FUND**

This MacAlert was written with the assistance of industry advisors, and produced by the *National Innovation and Adoption* program using the macadamia research and development levy and contributions from the Australian Government.



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