



IPDM Calendar for Cherries 2015



	100% LEAF FALL	DORMANCY	BUDSWELL	BUD BURST	FLOWERING	SHUCK FALL	SHOOT AND FRUIT DEVELOPMENT	HARVEST	POST HARVEST		
MONITORING			Hang fruit fly traps in orchard and check frequently				And - Check fruit for stings				QFF
CULTURAL		Remove alternative fruit sources – clean up rotting fruit					Remove rotting and fallen fruit, keep orchard floor clear			QFF	
BIOLOGICAL											
CHEMICAL					Low pressure ; use bait sprays at 7-10 day intervals from first sighting. High pressure ; use bait sprays at 7-10 day intervals all season						
MONITORING			Hang fruit fly traps in orchard and check frequently				And - Check fruit for stings				MFF
CULTURAL		Remove alternative fruit sources – clean up rotting fruit					Remove rotting and fallen fruit, keep orchard floor clear			MFF	
BIOLOGICAL											
CHEMICAL					Low pressure ; use bait sprays at 7-10 day intervals from first sighting. High pressure ; use bait sprays at 7-10 day intervals all season						
MONITORING			Hang traps in orchard and check frequently (weekly or fortnightly – depending on export destination)							LBAM	
CULTURAL		Keep weeds down, and remove pruning waste			Keep weeds down to reduce the number of overwintering sites				LBAM		
BIOLOGICAL			Place pheromone traps in orchard		Encourage parasitic & predatory insects, consider <i>Trichogramma</i> wasps						
CHEMICAL					Match control to egg hatching, use date of first trap catch as a guide, selective insecticides available						
MONITORING			Hang traps in orchard and check frequently (weekly or fortnightly – depending on export destination)							CODLING MOTH	
CULTURAL		Keep weeds down, and remove pruning waste			Keep weeds down to reduce the number of overwintering sites				CODLING MOTH		
BIOLOGICAL			Place pheromone traps in orchard								
CHEMICAL					Match control to egg hatching, use date of first trap catch as a guide						
MONITORING			Hang traps in orchard and check frequently (weekly or fortnightly – depending on export destination)							ORIENTAL FRUIT MOTH	
CULTURAL		Keep weeds down, and remove pruning waste			Keep weeds down to reduce the number of overwintering sites				ORIENTAL FRUIT MOTH		
BIOLOGICAL			Place pheromone traps in orchard								
CHEMICAL					Most insecticides targeted at other moths will control other moth pests						
MONITORING			Check growing tips regularly, especially early in the season							APHIDS	
CULTURAL					Minimise excessive vegetative growth and physically remove colonies if small scale infestation occurs				APHIDS		
BIOLOGICAL			Encourage parasitic and predatory insects with nectar-producing plants within orchard, headlands and windbreaks								
CHEMICAL		Apply winter oil	Spray 'hot spots' early, or apply to blocks if necessary								
MONITORING		Check soil for pupae	Check trees for beetles, consider using banded cardboard traps							WEEVILS	
CULTURAL		Keep weeds and plant debris to a minimum, consider soil disruption if pupae spotted	Remove mulch from under trees, control weeds and consider removing low branches						WEEVILS		
BIOLOGICAL			Consider using poultry to control weevils under trees (small scale only)								
CHEMICAL			Consider dusk applications of insecticide (trunk sprays) if heavy infestations occur								
MONITORING			Check trees regularly for mealybug crawlers, check undersides of leaves, and stem bowls							MEALYBUG	
CULTURAL		Keep weeds and plant debris to a minimum			Minimise movement of leaf material				MEALYBUG		
BIOLOGICAL			Encourage parasitic and predatory insects with nectar-producing plants within orchard, headlands and windbreaks								
CHEMICAL		Apply winter oil	Most insecticides targeted at aphids will also suppress or control mealy bug								
MONITORING			Check trees regularly for crawlers, especially early in the season							SCALE	
CULTURAL		Keep weeds and plant debris to a minimum			Physical removal possible if small scale infestation occurs		Minimise movement of leaf material		SCALE		
BIOLOGICAL											
CHEMICAL		Apply winter oil	Most insecticides targeted at other pests may also suppress or control scale								
MONITORING			Check growing tips regularly, especially early in the season. Traps can be used.							THRIPS	
CULTURAL		Keep weeds down			Keep weeds down to reduce the number of overwintering sites				THRIPS		
BIOLOGICAL			Encourage parasitic and predatory insects with nectar-producing plants within orchard, headlands and windbreaks								
CHEMICAL			Apply 3 consecutive sprays if thrips present, keep monitoring and use insecticide with alternative mode of action if thrips return								
MONITORING		Check soil for pupae	Check buds and growing tips early in the season for bud worm, continue checking trees throughout the season							NATIVE BUDWORM	
CULTURAL		Keep weeds and plant debris to a minimum, consider soil disruption if pupae spotted							NATIVE BUDWORM		
BIOLOGICAL			Encourage parasitic and predatory insects with nectar-producing plants within orchard, headlands and windbreaks								
CHEMICAL			Most insecticides targeted at leaf rollers will suppress other moth pests								
MONITORING			Check trees for beetles (funnel traps could be used)							BEETLES	
CULTURAL		Remove alternative fruit sources – clean up rotting fruit					Remove rotting and fallen fruit, keep orchard floor clear		BEETLES		
BIOLOGICAL											
CHEMICAL			Insecticide use if not necessary unless populations are very high								
MONITORING		Check soil for pupae	Check trees for slug damage regularly, try and catch the first emergence early in the season							CHERRY SLUG	
CULTURAL		Keep weeds and plant debris to a minimum, consider soil disruption if pupae spotted							CHERRY SLUG		
BIOLOGICAL			Encourage parasitic and predatory insects with nectar-producing plants within orchard, headlands and windbreaks								
CHEMICAL		Apply winter oil	Most insecticides targeted at other pests will suppress or control cherry slug								
MONITORING			Check trees or traps for earwigs, suggested threshold is 5 earwigs per tree/trap			Monitor for fruit damage if population high				EARWIG	
CULTURAL			Remove mulch from under trees, control weeds and consider removing low branches						EARWIG		
BIOLOGICAL			Consider using poultry to control weevils under trees (small scale only)								
CHEMICAL			Apply ground baits before earwigs move up into trees.	Apply ground baits for second generation if necessary							
MONITORING		Check trees for cankers to remove	Monitor trees (requirement for export to China)							BACTERIAL CANKER	
CULTURAL		Site & variety selection important, use clean graft wood					Prune out infected wood		BACTERIAL CANKER		
BIOLOGICAL											
CHEMICAL		Apply copper at early and late dormancy	Apply copper if infection severe			Apply copper					
MONITORING		Assess risk by estimating mummified fruit numbers	Monitor trees (requirement for export to China)							BROWN ROT	
CULTURAL		Remove mummified fruit and infected twigs					Good insect control will limit spread		BROWN ROT		
BIOLOGICAL			Biological control options are available for compatibility with chemical control								
CHEMICAL			Apply systemic fungicides	Apply protectant and systemic fungicides if required							
MONITORING			Monitor trees (requirement for export to China)							TWIG BLIGHT & SHOTHOLE	
CULTURAL		Site & variety selection important, use clean graft wood							TWIG BLIGHT & SHOTHOLE		
BIOLOGICAL											
CHEMICAL			Control of bacterial canker and brown rot should also suppress other diseases								

Pests	China	Hong Kong	Japan	Korea	Philippines	Taiwan	Thailand	UK/Europe	USA
Old Fruit Fly Mediterranean Fruit Fly Queensland Fruit Fly Other Fruit flies	•		•	•	•	•	•		•
Leaf Roller Codling Moth Light Brown Apple Moth Tortricid Moth (LBAM) Oriental Fruit Moth	•		•	•	•	•	•		•
Aphids Black Cherry Aphid Black Peach Aphid	•			•					
Weevils Fuller's Rose Beetle/Weevil Garden Weevil (Vine cal)	•			•					
Mealybug Citropilus mealybug Long-tailed Mealybug	•			•					
Scale European Brown Scale Oleander scale Oystershell Scale San Jose Scale				•	•		•		
Thrips Plague Thrips Western Flower Thrips	•			•		•			
Worms Native Bud worm							•		
Beetles Plague Soldier Beetle Carpophilus Beetle	•								
Cherry Slug									
Earwig									
Pest Mites									
Diseases	China	Hong Kong	Japan	Korea	Philippines	Taiwan	Thailand	UK/Europe	USA
Bacterial canker	•						•	•	
Brown Rot	•								
Twig Blight	•								
Shot hole				•					

Monitoring summary for export to China (essential)

Pests	how often?	where to look?	how many?	action threshold	suggested action
Fruit Fly Mediterranean Fruit Fly Queensland Fruit Fly	fortnightly*	traps# fruit	refer to notes	refer to notes	talk to local agency consider bait sprays consider end point treatments
Leaf Roller Light Brown Apple Moth Tortricid Moth (LBAM)	fortnightly*	traps and trees	refer to notes	3 moths per trap	target sprays to larvae emergence talk to local agency consider end point treatments
Aphids Black Cherry Aphid Black Peach Aphid	fortnightly*	buds, new growth, leaf tips	10 trees per block	2 colonies per tree	refer to IPM calendar and spray program guide
Weevils Fuller's Rose Weevil Garden Weevil	fortnightly	trees	10 trees per block	30+ weevils per tree	refer to IPM calendar, spray guide and alert packing shed Consider winter management
Mealybug Long-tailed Mealybug	fortnightly	branch junctions, leaves, fruit stem bowls	10 trees per block	No threshold set	refer to IPM calendar, spray guide and alert packing shed
Thrips Plague Thrips	fortnightly	buds, new growth, leaf tips	10 trees per block	Presence	refer to IPM calendar and spray program guide
Beetles Plague Soldier Beetle	fortnightly	trees	10 trees per block	No threshold set	refer to IPM calendar and alert packing shed
Diseases	how often?	where to look?	how many?	action threshold	suggested action
Bacterial canker	fortnightly*	trees	10 trees per block	No threshold set	refer to IPM calendar
Brown rot		fruit	10 fruit clusters per block	action required if symptoms present	
Twig blight		trees	10 trees per block		

Additional monitoring for good practice and for export to all protocol countries

Pests	how often?	where to look?	how many?	action threshold	suggested action
Mealybug Citropilus mealybug	fortnightly	branch junctions, leaves,	10 trees per block	No threshold set	refer to IPM calendar, spray guide and alert packing shed
Scale European Brown Scale Oleander Scale Oystershell Scale San Jose Scale	fortnightly	bark, branches, fruit and leaf stems	10 trees per block	No threshold set	refer to IPM calendar and spray program guide
Thrips Western Flower Thrips	fortnightly	buds, new growth, leaf tips	10 trees per block	Presence	refer to IPM calendar and spray program guide
Worms Native Bud Worm	fortnightly	buds, new growth,	10 trees per block	No threshold set	refer to IPM calendar
Beetles Carpophilus Beetle	fortnightly	trees	10 trees per block	No threshold set	refer to IPM calendar and alert packing shed
Cherry Slug	fortnightly	leaves	10 trees per block	No threshold set	refer to IPM calendar and spray guide
Earwig	fortnightly	traps, fruit and trees	10 trees per block	5 earwigs per trap	refer to IPM calendar and spray guide
Pest Mites	fortnightly	trees	10 trees per block	No threshold set	refer to IPM calendar and spray guide
Diseases	how often?	where to look?	how many?	action threshold	suggested action
Shot hole	fortnightly*	leaves	10 trees per block	No threshold set	refer to IPM calendar

Monitoring notes

- To ensure compliance with export protocols for China fortnightly monitoring should be undertaken; some protocols require weekly monitoring
- Monitoring does not equal control
- Absence of pests and diseases needs to be recorded – mark the monitoring sheet with an 'x' or 'no' or 'nil'**
- All countries are concerned about **fruit fly** – talk to your local agency regarding monitoring currently in place
- All blocks registered for export must contain at least one fruit fly trap for each fly (QFF and MFF)**
- It is recommended that traps for fruit fly are consistent with the National Code of Practice where possible; Lynfield or suitable equivalent
- If fruit fly is detected verification can be made by state agencies**
- The action threshold for fruit fly is 'presence'**. If one fly is detected contact your local agency for advice, and consider using bait sprays
- For export to Japan and Korea from Tasmania – talk to DPI/PWE regarding trapping and monitoring for codling moth
- For other states, all blocks registered for export must contain at least one trap per block for codling moth and LBAM
- Action taken in response to light brown apple moth sightings is based on Degree Day Calculations – ask for advice if needed
- Become familiar with the life cycle of pests and diseases – this will help to know when to expect an outbreak; refer to factsheets
- Longtailed mealybug is considered exotic in Australia (Plant Health Australia); it is unlikely to be found in cherry orchards – if any mealybugs are suspected talk to your local agency
- 'No threshold' on the monitoring guide does not equal 'no action'**; this means there is no agreed threshold for action. Talk to your local agronomist or service provider, or use past records to develop your own threshold at which damage occurs. CGA are building a database of known pests and diseases
- There are currently no rejection thresholds set by China; the pest and disease database will help inform decisions on damaging levels**
- Any unusual pests should be reported immediately through the Exotic Plant Pest Hotline (1800 084 881).**



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