

**MAF Phytosanitary Compliance
Programme for verification of the
on-orchard pest management
measures for codling moth (*Cydia
pomonella*)**

2011-2012
Version 1.1



Version Control

This section captures changes in subsequent version(s) of the document for maintaining record(s) and easy reference.

Document versions are not numbered. Version control is achieved by reference date in the footer of the document.

All programme participants must use and refer to the latest version of the document.

The changes are listed in the table below:

No.	Version date	Section Changed	Change(s) Description
1.	16 September 2011	The final edition	n/a
1.1	20 February 2012	Appendix 4	Removed references to PHIs Growers and MAF AOs are NOT required to send a formal confirmatory note of receipt of this version to their IVA



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PART 1 INTRODUCTION

This document forms the basis of an integrated systems approach to manage risk of codling moth being present in apples exported to markets that require implementation of specific on-orchard management measures for this pest. Specifically, this programme (“the Programme”) outlines the requirements to be met by growers of apples for export to such markets (“CM sensitive markets”) and those organisations verifying grower compliance with the Programme’s requirements.

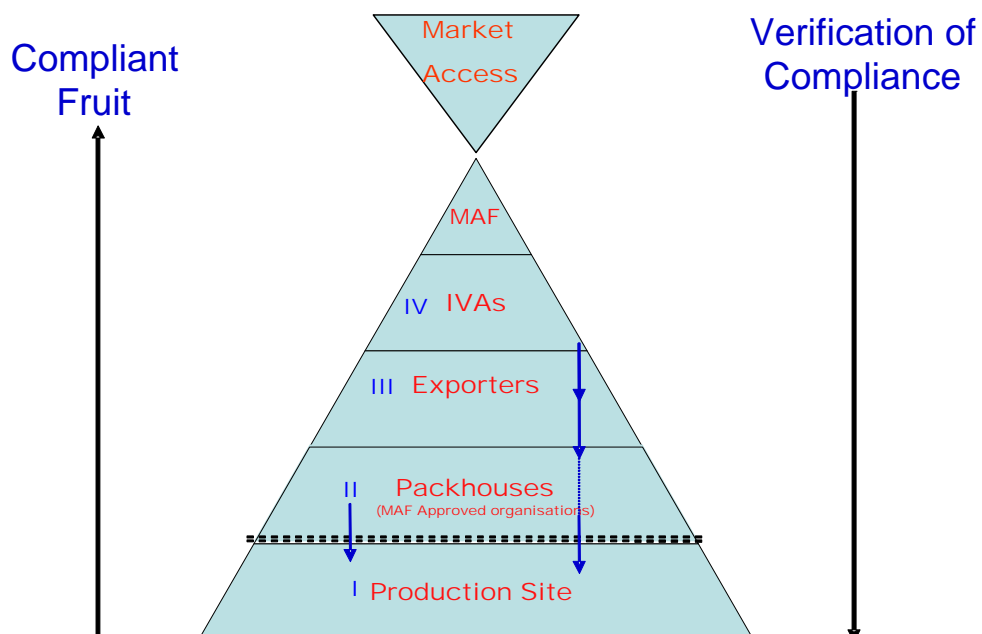
It should be noted that if codling moth is actually found in apples for export, different countries have specific requirements as to how this should be dealt with. These requirements are not set out in this document but can be accessed at individual country’s compliance programmes

IMPORTANT NOTES:

1. **This programme represents the minimum requirements for the orchard control of codling moth in apples exported from New Zealand to markets specifically requiring such measures.**
2. **Growers who are new to the programme (e.g. have not previously exported apples to markets specifically requiring such measures) will need to meet additional programme requirements (refer High Risk Production Site Requirements).**

This compliance programme vertically integrates the production phase within the product pathway for export to codling moth sensitive markets (Figure 1).

Figure 1: Model for the phytosanitary compliance programme for the export of apples to codling moth sensitive markets



The following table summarizes type and frequency of verification checks conducted by various programme participants.

Table1: Summary of Verification Checks utilized in the compliance programme

Programme participants	Verification Checks	
	Type	Frequency
Registered Growers	Trap surveys	Weekly
MAF Approved organisations or IVAs	Compliance monitoring of registered growers	At least twice during the season. A proportion (10%) of sites operating in March will have the third audit.
IVAs	Audit of MAF Approved Organisations in the pest monitoring phase	At least twice during the production phase. A proportion (10%) of organisations monitoring production sites in March will have the third audit.
	System Audit	Refer MAF Export Certification Standard: Organisation Requirements
MAF	A verification audit of IVAs services to the programme	When requested by MAF Director Import and Export Standards

Each phase within this programme can only be successfully completed if the previous phase below has been successfully completed. This method of operating the compliance programme places emphasis on the codling moth pest management where it can be best controlled – the production site. The New Zealand Pipfruit Industry’s Integrated Fruit Production Programme (IFP) forms the technical basis for codling moth pest management.

This programme recognises the packing organisations’ role in assessing how best to manage their risks associated with obtaining apples from their supplying registered production sites. Accordingly, packing organisations have the option of taking responsibility to monitor and verify their grower production sites’ compliance with the codling moth trapping and pest management requirements.

This recognises New Zealand’s packing organisations’ activities becoming more integrally linked with an increased number of production and marketing aspects. To best facilitate this compliance programme and minimise the risk of failure, packing organisations need to be MAF Approved Organisations to undertake an increased level of export phytosanitary activities i.e. to monitor and verify growers’ compliance with the codling moth trapping and pest management requirements. Pest surveying organisations may also choose to become MAF Approved Organisations for this purpose.

The MAF Approved organisations’ overall performance in operating their documented and MAF approved systems is audited by IVAs.

KEY CONTACTS

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Registers of compliant participating parties within this programme are identified upon the MAF website:

<http://www.biosecurity.govt.nz/regs/exports/plants/compliance>

PART 2 GROWER REQUIREMENTS

2.1 Application for registration of production site(s)

Requirement Number	Requirement Growers must:	Notes:
1.	Apply to register their production site(s) to this programme by 8 September each year specifying which markets requiring specific CM management measures they intend to export to.	<ul style="list-style-type: none"> • In 2011, applications for registration will be received until 23 September. • Initial registration process is coordinated by Pipfruit NZ Inc. on behalf of MAF that will collect registration information and pass it to MAF AO and/or IVAs for verification before registration is confirmed. • Registration information will be sent directly to all existing registered growers in July of each year. • The previous season's phytosanitary inspection records determine the risk status of the production site. • High risk production sites (refer Appendix 2) MUST use mating disruption (Refer Section 2.8) to be eligible to register for this programme. • Production sites found to be non-compliant with this programme's requirements shall be removed from the register of compliant production sites immediately. Apples from these production sites may not be exported to any of the markets with specific requests for CM management within the same growing and exporting season. • It is recommended that growers check their registration status on the MAF website by 10 January annually to ensure the details are correct prior to harvest commencing. •

<p>2.</p>	<p>Submit a map with their registration clearly showing registered production sites, the area in hectares, CM sensitive market registered varieties within the production site and the position and identification of CM traps.</p>	<ul style="list-style-type: none"> • A copy of the map is to be retained by the grower for compliance checking • Maps need to annotate north direction, show individual trap ID numbers, row numbers or have marked trees at the end of rows which will assist independent surveyors with locating each CM pheromone trap. • Ensure the areas given at registration are accurate as these define number of traps required. The area within a production site borders is to include, orchard roads, headlands, etc. This requires of the grower to precisely define the borders of the production site when applying for registration. • Production site compliance monitors are to verify the size of at least one quarter (25%) of all production sites per grower/orchard manager and as many as the compliance monitors deem necessary to satisfy themselves that the actual size of the production sites are accurately documented. The size of production sites once verified do not need to be verified again unless changed. • If a registered production site contains more than one variety block of a variety intended for a CM sensitive market registration then all variety blocks of that variety within the production site must be registered and treated as per the programme requirements for the entire season. Please refer section 2.2.2. • Refer to the “Guideline on How to define production sites” in the Appendix 3 of this programme.
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		<ul style="list-style-type: none"> • Please note section 2.2.4 Spray diaries are to be defined as per your market production site registration for RPIN, production site and CM sensitive market registered varieties definitions.
3.	<p>Include with their registration information their intended packing organisation and their contact details.</p> <p><u>Important note – Compliance monitoring frequency:</u> Each grower's codling moth surveying and pest management programme must be checked for compliance at least once during the each of the following time periods:</p> <ol style="list-style-type: none"> 1. Following trap placement in October (registration audit) 2. During mid January through to mid March but before the first harvest based on the dominant variety mix 3. During early March to the end of March – randomly selected 10% of the total of all productions sites that have dominant varieties coming into harvest in February <u>AND</u> in/after March. 	<ul style="list-style-type: none"> • The grower can nominate one of the following to monitor compliance to the programme: an IVA or MAF approved packing organisation <u>or</u> other MAF Approved Organisation (AO). This information will be held on the PNZI website so all AOs can see that all production sites have someone responsible for their audit requirements. • The grower needs to ensure production site records are transferred/available to their final compliance monitoring organisation if changes occur. • If a grower wishes to change the AO that is auditing their property for compliance to the programme then the grower is to contact all AOs in the process i.e. packhouse or survey organisation, IVA and PNZI. <i>(PNZI provides additional support to industry participants by ensuring that all organisations involved in the transfer have been notified and that transfer has occurred so that growers do not find their productions sites non-compliant due to change over process.)</i> • Where AOs are contracted to monitor grower's compliance to trapping and pest management requirements, additional contact may be required to confirm confidence that the programme requirements are being met.

		<ul style="list-style-type: none"> • Where a grower disagrees with a decision made by an IVA/AO monitoring its compliance, the grower may contact one level up i.e. his/her IVA or MAF and seek further clarification. The appropriate procedure will be posted on MAF's website • The grower must indicate to its Approved Organisation during the time of the initial audit if there are CM sensitive market registered varieties scheduled for harvest in February (e.g. Royal Gala) <u>AND</u> in/after March (e.g. Fuji). Those that fail to provide accurate information will be scheduled for the third audit in addition to the 10% of randomly selected production sites. • Once the production site has passed the registration audit the register of compliant production sites will be posted on the MAF website.
4.	Attend a PNZI coordinated pre-season workshop on the programme requirements for CM trapping and pest management.	<ul style="list-style-type: none"> • Failure to attend a workshop will preclude participation in the programme. • Workshop details will be provided to all registered growers. Direct all enquiries to PNZI.

2.2 Production Site Requirements

Requirement Number	Requirement Each production site must	Notes:
1.	Be a minimum of 1 hectare. UNLESS the area is a planting of new, restricted, trial varieties	<ul style="list-style-type: none"> • Organic producers refer section 2.9 for additional requirements • Smaller areas with new restricted, trial varieties may be included but will have to be monitored, trapped and treated (CM managed) as per this programme's requirements.
2.	<ul style="list-style-type: none"> • Be trapped and managed for CM in its entirety until 31 December (all varieties regardless of registration status for CM sensitive markets) 	<ul style="list-style-type: none"> • This also applies where the entire RPIN is registered for this programme as one production site.

	<ul style="list-style-type: none"> • Be trapped for CM in its entirety from 1 January (all varieties regardless of registration status for CM sensitive markets) • Be managed for CM only in codling moth sensitive market registered varieties from 1 January. 	<ul style="list-style-type: none"> • If a registered production site contains varieties NOT registered for a specific CM sensitive market these plantings are still to be included in the overall area to be trapped and traps placed in these varieties must continue to be monitored and responded to throughout the season (Ref. 2.4) • Refer to the Guideline on how to define production sites. Appendix 3 of this programme. • Refer to Appendix 2: Definitions & Acronyms on Registered Production Site and Registered Varieties
3.	Be harvested & packed as separate lines	<ul style="list-style-type: none"> • Individual bin cards or submission forms are to be sufficiently detailed to enable the packhouse to confirm the market production eligibility of the fruit based on your registration of the production site
4.	Correspond with those areas on the spray diary and the orchard map	<ul style="list-style-type: none"> • Spray diaries are to be defined as per your production site registration for RPIN, production site and management area definition • The updated spray diary information is to be available for compliance checking purposes. • It is highly recommended that growers check their registration on the MAF website by 10 January annually to ensure the details are correct prior to harvest commencing

2.3 Codling Moth Trapping and Surveying Staff Requirements

Requirement Number	Requirement	Notes:
1.	All production sites must institute a codling moth monitoring programme using standard 1mg (1x) concentration pheromone caps	<ul style="list-style-type: none"> • Growers operating low risk production sites (refer Appendix 2) may elect to

	unless they are operating codling moth mating disruption. In this case 10mg (10x) concentration pheromone caps must be used in the monitoring programme.	undertake trap monitoring themselves. <ul style="list-style-type: none"> High risk and Organic production sites – refer Sections 2.8 and 2.9 for additional requirements.
2.	<p>Codling moth monitoring trap survey staff must:</p> <ol style="list-style-type: none"> Meet the competency requirements of pest survey personnel specifically in relation to: <ol style="list-style-type: none"> CM trap placement, surveying and maintenance; and Ability to identify codling moth in the traps. Be maintained on the appropriate MAF Approved Organisation's (e.g. packhouse's, pest survey organisation's or IVA's) register of competent phytosanitary staff. 	<ul style="list-style-type: none"> Refer to "MAF Export Certification Standard: Technical Requirements: Pest Survey" for competency requirements Growers and other pest survey organisations may become MAF Approved Organisations for survey purposes. (Refer to MAF Export certification System Standards.) Codling moth monitoring trap survey staff assessed as competent by one approved organisation do not need to be reassessed by the other organisation in the same growing season. Proof of competency will be however required (e.g. an official note/letter from an organisation confirming competency of an individual). Competency of the codling moth surveyors is to be renewed annually. A production site may, in addition to CM trap survey staff, appoint Assistant CM trap surveyors. Assistant CM trap surveyors must as a minimum has the ability to identify codling moth in the traps. (2.3.2.1b) and ability to read maps and find traps and accurately record counted CM.

2.4 Key Trapping Dates

Requirement Number	Requirement	Notes:
1a.	<p><u>North Island</u></p> <ul style="list-style-type: none"> Traps must be placed within designated production site(s) on or before 15 October annually. Traps must be charged with pheromone caps and bases on or before the seventh 	<ul style="list-style-type: none"> The trapping close off date is to be observed unless all CM sensitive market destined varieties within the production site have been harvested. Growers should notify their AOs if they have not

	<p>day after the first mandatory spray application based on BIOFIX + 80-110 GDD</p> <ul style="list-style-type: none"> • CM trap surveys must start 7 days after traps have been charged with pheromone caps and bases as above • CM trap surveys must continue until 31 March 	<p>received the first audit prior to the first mandatory spray being applied</p> <ul style="list-style-type: none"> • Refer Guideline G2 for BIOFIX dates • Trap maintenance requirements falling within the period of the final week of trapping for the season do not need to be carried out as this will have no bearing on the final outcome this late in the season.
1b.	<p><u>Nelson and Canterbury</u></p> <ul style="list-style-type: none"> • Traps must be placed within designated production site(s) on or before 15 October annually. • Traps must be charged with pheromone caps and bases on or before the seventh day after the first mandatory spray application based on BIOFIX + 80-110 GDD • CM trap surveys must start 7 days after traps have been charged with pheromone caps and bases • CM trap surveys must continue until 15 March 	<ul style="list-style-type: none"> • The trapping close off date is to be observed unless all CM sensitive market destined varieties within the production site have been harvested. • Growers should notify their AOs if they have not received the first audit prior to the first (mandatory) spray being applied • Refer Guideline G2 for BIOFIX dates • Trap maintenance requirements falling within the period of the final week of trapping for the season do not need to be carried out as this will have no bearing on the final outcome this late in the season.
1c.	<p><u>Otago</u></p> <ul style="list-style-type: none"> • Traps must be placed within designated production site(s) on or before 5 November annually. • Traps must be charged with pheromone caps and bases on or before the seventh day after the first mandatory spray application based on BIOFIX + 80-110 GDD CM trap surveys must start 7 days after traps have been charged with pheromone caps and bases • CM trap surveys must continue until 15 March 	<ul style="list-style-type: none"> • The trapping close off date is to be observed unless all CM sensitive market destined varieties within the production site have been harvested. • Growers should notify their AOs if they have not received the first audit prior to the first mandatory spray being applied Refer Guideline G2 (Appendix 4) for BIOFIX dates. • Trap maintenance requirements falling within the period of the final week of trapping for the season do not need to be carried out as this will have no bearing on the final outcome this late in the season.

2.5 Trapping Density and Location of Codling Moth Traps

Requirement Number	Requirement	Notes:
1.	Trap density within designated production site(s) must meet a minimum of 1 trap per hectare.	<ul style="list-style-type: none"> Where a part hectare is included then the trap number is rounded according to 'Swedish rounding' i.e., 0.0-0.49 (ha) is rounded DOWN and 0.5-0.99 is rounded UP such that an additional trap is required.
2.	Traps must be placed in apple trees: <ol style="list-style-type: none"> A minimum of 50m apart. Between 5m - 25m in from the outside row and from the end of rows of trees. In the top 10% of the canopy as at the time of first trap placement At least 4 metres away from other (non-codling moth) pheromone traps 	<ul style="list-style-type: none"> Trap placement within designated production site is to be as evenly spaced as possible. However, trap placement within designated production sites may be biased towards high CM pressure areas of the production site(s) where these exist but must still meet a minimum density requirement. Biasing traps toward high pressure areas is particularly important for small production sites of irregular shape or long and narrow sites. However, for sites with only one trap and in absence of identifiable risk factors the trap is to be positioned as close to the center of the long axis of the site. Remember to indicate your trap locations and unique trap ID on your production site map (please refer 2.6.1).

2.6 Traps Surveying and Maintenance

Requirement Number	Requirement	Notes:
1.	Every CM trap must be identified with the RPIN and a unique trap identification number (ID).	<ul style="list-style-type: none"> The RPIN and trap ID is to be written in permanent marker pen on the permanent body of the trap.
2.	CM traps must be checked at least every 7 days during the monitoring period and any CM finds recorded in the pest monitoring sheets of the grower's field book (or equivalent).	<ul style="list-style-type: none"> Remove any codling moth(s) trapped from the base by use of a knife or a similar flat scraper.

3.	<p>CM trapping records must:</p> <ul style="list-style-type: none"> i) Contain the number of CM trapped for that week; ii) Contain the date of inspection; iii) Contain the initials of the registered trap surveyor; iv) Contain trap maintenance records (e.g. replacement of pheromone cap and/or base). v) Be complete and accurate; vi) Be immediately available to the grower's MAF Approved Survey Organisation (either as hardcopy and/or electronic) for compliance checking. 	<ul style="list-style-type: none"> • All pest survey information collected within this programme is the property of MAF to facilitate phytosanitary certification. • CM pest survey information is to be made available to at least the next level up in the integrated regulatory model (Refer Figure 1). • Refusal to supply pest survey data will automatically exclude the grower's production sites from this programme and MAF certification. • All pest survey data associated with this programme is being collated by PNZI on behalf of the programme management team to monitor performance of the programme and enable improvements to be instituted based on sound field data. • This data will also be used to identify codling moth flight activity in growing districts.
4.	Purchase records for CM pheromone caps and trap bases must be retained for compliance checking.	<ul style="list-style-type: none"> • Ensure cap expiry date has not been exceeded, & the caps are stored as per manufacturer's label specifications.
5.	Trap bases must be replaced every 3 weeks.	<ul style="list-style-type: none"> • Trap bases may need to be replaced more often if dust or other contaminants affect the trapping efficiency
6.	Pheromone lures (caps) must be replaced every 6 weeks.	<ul style="list-style-type: none"> • Do not throw away any caps on-orchard. Place them in a plastic bag, seal the bag and dispose of them off-orchard.

2.7 Codling Moth Pest Management Requirements

Requirement Number	Requirement	Notes:
1.	<p>All production sites must institute a compulsory codling moth pest management programme as defined in Appendix 4.</p> <p>Applications of all sprays for codling moth control must be applied in the entire production site up to 31 December in any year.</p> <p>As of 1 January growers must continue monitoring CM population in the entire registered production site (All registered varieties) and must treat CM sensitive market registered varieties within registered production sites if trap threshold criteria are exceeded.</p> <p>Where the following CM trap thresholds are exceeded:</p> <p><i>Until 31 December in the North Island only and for the whole season in the South Island</i></p>	<ul style="list-style-type: none"> • Refer 2.2.2 for the production site requirements • Mating disruption may be used within a production site without affecting risk status of the production site. • Where these thresholds are exceeded the grower has the option of undertaking CM pest management or withdrawing their production site from the programme. • Refer Guideline G2 for pest management recommendations • For duration of CM trapping refer Section 2.4.
	<p>i. Five or more moths in any single trap in any calendar week</p> <p>Or</p> <p>ii. An average of two or more moths over all the traps in the production site</p> <p>Or</p> <p>iii. An accumulation of ten moths in any single trap since the last codling moth or codling moth active-leafroller insecticide</p> <p><i>From 01 January in the North Island only:</i></p> <p>iv. Five or more moths in any single trap in any calendar week</p> <p>Or</p> <p>v. An average of two or more moths over all the traps in the production site</p> <p>Or</p> <p>vi. An accumulation of five moths in any single trap since the last codling moth or codling moth active-leafroller insecticide.</p>	<ul style="list-style-type: none"> • If a variety within a production site registered in this programme has been completely harvested and a CM trap threshold within the site is exceeded, CM pest management is to be applied to the remaining varieties only. • Once ALL CM sensitive market registered varieties within the site are harvested, all other varieties cease to be governed by this compliance programme. • For North Island only: If a trap reads under an accumulation of 10 moths prior to 1 Jan then no action is required. If at the first reading after 1 Jan the accumulation is 5 moths or higher then registered varieties within the registered production site must be treated with a CM active spray.

2.	CM pest management records must be maintained in the spray diary for the production site, and the grower's MAF approved organisation notified of measures taken.	<ul style="list-style-type: none"> • These records and trap survey records will be cross-checked by the MAF approved organisation to verify compliance with the programme's requirements.
3.	Where a CM high pressure situation occurs (refer definitions) the grower must consult with their MAF approved organisation with regard to the success of their management programme or their option of withdrawing the production site from the programme. This is to minimize the risk to the packing organization and the overall programme.	<ul style="list-style-type: none"> • If the grower decides to withdraw once harvesting is underway they need to ensure apples are submitted as "not suitable to this programme", and notify their compliance monitoring organisation of this decision in writing. • At least one seasons' combined mating disruption and spray programme is recommended to reduce codling moth pressure to levels that are not constantly exceeding thresholds.

2.8 High Risk Production Sites Additional Requirements

Requirement Number	Requirement	Notes:
1.	The registration requirements of section 1 must be met.	
2.	<p>A mating disruption programme must be instituted within a high risk production site.</p> <p>The production site(s) must:</p> <ul style="list-style-type: none"> - Be free of apples that remain untreated for CM. 	<ul style="list-style-type: none"> • The previous season's phytosanitary inspection records of live codling moth detection(s) determine the risk status of the production site. Voluntary withdrawal from the programme in the previous season does NOT constitute a high risk status. • Refer Guideline G2 for mating disruption programme recommendations. • Ideally the site should be: <ul style="list-style-type: none"> a) nearly square in shape; b) relatively sheltered and flat c) free of walnut trees which can act as an alternate host for CM
3.	All requirements of Section 2.1 – 2.6 are applicable on high risk sites except, in addition:	<ul style="list-style-type: none"> • These trapping specifications are a result of implementing a mating disruption programme.

	<p>The CM traps must be:</p> <ul style="list-style-type: none"> • baited with 10mg “10x concentrate” codling moth pheromone caps; • surveyed by a MAF approved pest survey organisation. 	<ul style="list-style-type: none"> • Refer section 2.6 for CM trap surveying and maintenance • Independent monitoring is to be carried out at the registrant’s cost. • Growers may opt for self-monitoring in the following season if they have a year without codling moth larva detection in the pathway.
4.	<p>At harvest, a competent codling moth inspector must inspect at least 1000 apples in total spread evenly across 10 bins of harvested apples from each CM sensitive market destined variety during the first harvest for the presence of live CM and damage.</p> <p>If fewer than 10 bins are harvested the 1000 fruit sample should be spread evenly across all harvested bins.</p>	<ul style="list-style-type: none"> • Submit 1000-apples inspection records to your packhouse prior to or at the time of fruit submission to any of the CM sensitive markets.

2.9 Organic Production Sites Additional Requirements

Requirement Number	Requirement	Notes:
1.	The registration requirements of section 1 must be met.	
2.	A mating disruption programme must be instituted within grower defined organic production site(s).	<ul style="list-style-type: none"> • Refer Guideline G2 for mating disruption programme recommendations.
3.	<p>All requirements of Section 2.1 – 2.6 (inclusive) are applicable on organic production sites except, in addition:</p> <p>The CM traps must be:</p> <ul style="list-style-type: none"> • baited with 10mg “10x concentrate” codling moth pheromone caps; 	<ul style="list-style-type: none"> • These trapping specifications are a result of implementing a mating disruption programme. • Refer section 2.6 for CM trap surveying and maintenance.
4.	<p>The production site(s) must:</p> <ol style="list-style-type: none"> 1. Not exceed a 2:1 length: breadth ratio; 2. Be free of apples that remain untreated for CM and free of walnut trees which can act as an alternate host for CM 	<ul style="list-style-type: none"> • In order to maximize the impact of CM mating disruption, the site should be: <ol style="list-style-type: none"> a) nearly square in shape; b) relatively sheltered and flat
5.	At harvest, a competent codling moth inspector must inspect at least 1000 apples	<ul style="list-style-type: none"> • Submit 1000-apples inspection records to your



	<p>in total spread evenly across 10 bins of harvested apples from each CM sensitive market destined variety during the first harvest for the presence of live CM and damage.</p> <p>If fewer than 10 bins are harvested the 1000 fruit should be spread evenly across all harvested bins.</p>	<p>packhouse prior to or at the time of fruit submission to any of the CM sensitive markets.</p>
6	<p>Ensure all apples from the production site(s) destined for export to CM sensitive markets are submitted to a MAF approved (and registered for CM sensitive market packing) packhouse organisation.</p>	<ul style="list-style-type: none"> • If live codling moth is identified during this inspection process, that inspection lot will be denied access to the CM sensitive markets and any other market where CM is a quarantine pest. • Depending on the destination market, the production site may be removed from the programme for the remainder of the season. Please refer to individual compliance programmes for CM sensitive markets.

PART 3 MONITORING OF GROWERS' COMPLIANCE

Requirements for IVAs, Packhouses, Pest Surveying Organisations, etc.

3.1 Registration Requirements

Requirement Number	Requirement	Notes:
	All Organisations monitoring growers' compliance to this programme's requirements must:	
1.	Be a MAF Approved Organisation	<ul style="list-style-type: none"> Refer MAF Export Certification Standard: Organisation Requirements
2.	Register their intent to monitor growers' compliance with their IVA by 20 October annually.	<ul style="list-style-type: none"> Registration form is in Appendix 5 of this module Send your registration form directly to your IVA. The IVA will contact you and arrange an audit schedule of your MAF approved system.

3.2 Grower monitoring requirements

Requirement Number	Requirement	Notes:
	All AOs participating in this programme undertaking compliance monitoring of supplying growers must:	
1.	Document as part of their MAF approved Organisation's system, procedures for monitoring the compliance of their growers to the grower requirements (refer Part 2 of this programme).	<ul style="list-style-type: none"> Refer: "MAF Export Certification Standard: Technical Requirements: Pest Survey" for competency requirements. MAF Approved organisations may either document their own procedures or adopt MAF pre-approved procedures. Contact your IVA to obtain these pre-approved procedures.
2.	<p>Ensure AO's personnel monitoring their growers' compliance to the grower's requirements:</p> <ol style="list-style-type: none"> Meet the competency specifications of pest survey inspectors. Have knowledge of the following 	<ul style="list-style-type: none"> Refer: MAF Export Certification Standard: <ul style="list-style-type: none"> Organisation requirements Technical Requirements: Phytosanitary Inspection. Technical Requirements: Pest Survey.

	<p>programme requirements:</p> <ul style="list-style-type: none"> • Trap placement, monitoring and maintenance; • Ability to identify codling moth in the traps. • Ability to assess compliance to and decide if the growers' pest management measures meet the programme's requirements. <p>3. Are maintained on the MAF Approved Organisation's register of competent phytosanitary staff.</p>	<ul style="list-style-type: none"> • The packhouse organisations may utilise their approved Staff competency process and extend the scope of this to include pest survey monitoring staff.
3.	<p>As a minimum monitor each of their growers meeting surveying and pest management requirements of this programme at least once:</p> <ol style="list-style-type: none"> 1. Following trap placement in October 2. During mid January through to mid March but before the first harvest based on the dominant variety mix 3. During early March to the end for March – randomly selected at least 10% of the total of all productions sites that have dominant varieties coming into harvest in February <u>AND</u> in/after March. 	<ul style="list-style-type: none"> • Any additional monitoring is determined by the confidence level established in those undertaking the trap surveys & making decisions on pest management. • Those approved organisations monitoring compliance on less than 10 production sites must select at least one production site for the 3rd compliance check. • For the 3rd compliance check, where a part number is included then the number is rounded according to 'Swedish rounding' i.e., 0.0-0.49 sites to be rounded DOWN and 0.5-0.99 is rounded UP such that an additional site is required.
4.	<p>Submit to PNZI, at least monthly for the months of October to March (inclusive), a copy of the growers' trap monitoring records and the results of their grower compliance monitoring activities unless an electronic database for capturing this information on PNZI's website is used..</p>	<ul style="list-style-type: none"> • All pest survey data is being collated by PNZ on behalf of the programme management team to monitor codling moth flight & pest management activity. • Pest survey data are to be available for IVA auditing.
5.	<p>Submit to their IVA within 24 hours of detection any non-compliance associated with a registered production site.</p>	
6.	<p>Inform its IVA on the nature of non-compliance where a non-compliance has occurred on or after the seventh day after the first mandatory spray application based on BIOFIX + 80-110 GDD (refer 2.4). Minimum information required is:</p> <ul style="list-style-type: none"> ○ Identifier of the non-compliant grower 	<ul style="list-style-type: none"> • Any non-compliance in the production stage may lead to exclusion of the production site in the same season. • MAF will be making decisions on registration status on a case by case basis and will be guided by

	<ul style="list-style-type: none"> ○ Description of the non-compliance ○ Action(s) taken ○ Recommendation about the ongoing registration status of the non compliant grower 	<p>requirements of this programme and factual analysis provided in the Independent Verification Agency's event report.</p>
7.	<p>Where non-compliance has occurred before the seventh day after the first mandatory spray application based on BIOFIX + 80-110 GDD (refer 2.4), the grower in conjunction with its compliance monitor may implement immediate corrective action(s).</p> <p>These actions are to be immediately reported to the compliance monitors' IVA in order to check their validity and ensure ongoing compliance to the programme's requirements.</p>	



PART 4 MONITORING OF MAF APPROVED ORGANISATION'S COMPLIANCE

Requirements for IVAs

Requirement Number	Requirement	Notes:
	IVAs must:	
1.	Have procedures to manage and maintain the registration of MAF Approved organisations (e.g. packhouses, pest surveying organisations) operating within this programme.	<ul style="list-style-type: none"> • Refer MAF Export Certification Standard: Organisation Requirements. • Refer MAF Export Certification Standard: Pest Survey Requirements • Refer MAF Export Certification Standard: IVA Requirements
2.	Ensure that audit scope on verifying MAF approved Organisations registered for this programme focus on compliance to the relevant requirements of the: <ul style="list-style-type: none"> (a) MAF Export Certification Standard: Organisation requirements and any other applicable standard; and (b) Requirements of this programme 	
3.	Audit MAF approved organisations registered for this programme that monitor registered growers for compliance to the programme requirements at least: <ul style="list-style-type: none"> (a) 2 or 3 times during the pest monitoring phase (packhouses and pest surveying organisations); (b) One annual system audit (all). 	<ul style="list-style-type: none"> • Refer 3.2.3 for timing of the audits during the production phase. • MAF Approved Packhouses will be also audited during the apple packing phase (3 – 6 regular surveillance audits).
4.	Retain on file a copy of the appropriate completed and signed: <ul style="list-style-type: none"> ○ Application for Registration of Growers (Appendix 5) ○ Application for Registration of MAF AO monitoring compliance of growers (Appendix 6) 	<ul style="list-style-type: none"> • Refer Appendices 5 and 6 of this programme. • All records associated with monitoring programme participants are to be kept for at least 2 years. Refer MAF Export Certification Standard: IVA Requirements.
5.	(a) Provide MAF with an event report where a grower non-compliance has occurred on or after the seventh day after the first mandatory spray application based on BIOFIX + 80-110 GDD (refer 2.4) documenting:	<ul style="list-style-type: none"> • Any non-compliance in the production stage may lead to exclusion of the production site in the same season. • MAF will be making decisions on registration

	<ul style="list-style-type: none"> ○ Identifier of the non-compliant grower ○ Description of the non-compliance ○ Action(s) taken ○ Recommendation about the ongoing registration status of the non compliant grower <p>(b) Following MAF's decision immediately remove from the programme register production sites found to be non-compliant with the grower requirements of the programme.</p>	<p>status on a case by case basis and will be guided by requirements of this programme and factual analysis provided in the Independent Verification Agency's event report.</p> <ul style="list-style-type: none"> • Where a detected non-compliance affects the phytosanitary status of product en route to CM sensitive market(s), MAF will advise relevant NPPO of such situation and if necessary revoke phytosanitary certificate for the affected consignment. • Monthly summary report of the corrected non-compliances that has occurred before the seventh day after the first mandatory spray application based on BIOFIX + 80-110 GDD (refer 2.4is to be provided to MAF.
6.	<p>(a) Provide MAF with an event report documenting:</p> <ul style="list-style-type: none"> ○ Identifier of the non-compliant MAF Approved Organisation ○ Description of the non-compliance ○ Corrective Action(s) taken and verified ○ Recommendations to MAF <p>(b) Following MAF's decision immediately remove from the programme register those MAF Approved Organisations found to be non-compliant with the requirements</p>	<ul style="list-style-type: none"> • Refer MAF Export Certification Standard: Organisation Requirements • Any non-compliance in the production stage may lead to exclusion of the MAF AO in the same season. • MAF will be making decisions on registration status on a case by case basis and will be guided by requirements of this programme and factual analysis provided in the Independent Verification Agency's event report. <p>Where a detected non-compliance affects the phytosanitary status of product en route to CM sensitive markets, MAF will advise NPPO of such situation and if necessary revoke phytosanitary certificate for the affected consignment.</p>



7.	Maintain an up-to-date complete and accurate register of: Registered production sites compliant with this programme MAF AOs monitoring compliance of registered production in this programme	Registers of registered production sites and MAF AO monitoring compliance will be published on MAF website at: www.biosecurity.govt.nz/regs/exports/plants/compliance
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PART 5 PROGRAMME CONTINGENCY MEASURES - CODLING MOTH INTERCEPTIONS

Requirements for all participants

Requirement Number	Requirement	Notes:
1.	Any detection of live CM larvae in an apple at any point in time must be reported to your MAF AO monitoring growers' compliance and their IVA. The subsequent actions will be determined based on the destination market.	<ul style="list-style-type: none"> • For specific requirements and actions refer compliance programmes for countries where specific on-orchard CM pest management measures are required.

APPENDIX 1: REFERENCES

- MAF Export Certification Standard: IVA Requirements
(<http://www.biosecurity.govt.nz/files/regs/stds/iva-requirements.pdf>)
- MAF Export Certification Standard: Organisation Requirements
(<http://www.biosecurity.govt.nz/commercial-exports/plant-exports/standards-organ-req>)
- MAF Export Certification Standard: Phytosanitary Inspection
(<http://www.biosecurity.govt.nz/files/regs/stds/phyto-insp-tech-req.pdf>)
- MAF Export Certification Standard - System Overview and Requirements
(<http://www.biosecurity.govt.nz/commercial-exports/plant-exports/standards-system-overview>)
- NZ Pipfruit IFP/0811/A, NZ Pipfruit IFP/0108/A2/2, NZ Pipfruit, IFP/0811A1.11-14, NZ Pipfruit IFP/0811/A1.19- 34, NZ Pipfruit IFP/0811/A1.49-50

APPENDIX 2: DEFINITIONS & ACRONYMS

Approved Organisation	An Organisation that has been formally recognised by the Ministry of Agriculture and Forestry (MAF) as competent to provide specific phytosanitary activities in accordance with the requirements specified in the relevant MAF standard(s) (e.g. packhouses, or pest surveying organisations).
Assistant CM Trap Surveyors	Pest survey personnel capable of reading orchard map and accurately recoding information and specifically meeting competency requirements of in relation to: a) Ability to identify codling moth in the traps.
Base	The replaceable sticky base in the floor of delta monitoring TRAPS on which the CAP is placed and moths caught
Block (or Management Area)	A clearly identified planting of trees managed as an entity and may involve one or more varieties but may be discontinuous within a production site (referred to by the industry as a management area and identified as such on their spray diaries and apple packhouse submission records)
BIOFIX	The time to first flight of moths originating from the over-wintering pupal population of codling moth
Cap	Pheromone lure (either loaded with codlemone at 1mg or 10mg)
CM	Codling moth, scientific name <i>Cydia pomonella</i> (Linnaeus)
CM Trap Surveyors	Pest survey personnel meeting competency requirements of in relation to: a) CM trap placement, surveying and maintenance; and b) Ability to identify codling moth in the traps.
CMGV	Codling Moth Granulosis Virus, a species specific entomovirus
GDD	Growing Degree Days
Grower	Producer of apples under the this programme
Grower Line	Predefined quantity of apples from a single production site registered under this programme, from which samples are drawn by a phytosanitary inspector and inspected to determine eligibility for export.
High codling moth pressure site	A production site where the CM traps exceeded the thresholds set out in Section 2.7.1 of this document on four occasions (i.e. where 5 or more chemical interventions for codling moth were made during the season).

High risk production sites	(1) Production sites where codling moth was detected at harvest or post harvest in the previous season; or (2) Production sites that were removed from the programme in the previous season due to non-compliance with the programme; or (3) Managed by growers new to the programme AND who do not have a documented history from within the last 2 seasons of CM management.
ICPR	Importing Country Phytosanitary Requirements
IFOAM	International Federation of Organic Agriculture Movements
IFP	Integrated Fruit Production
IPPC	International Plant Protection Convention
NPPO	National Plant Protection Organisation as defined in the IPPC
IVA	An organisation accredited as meeting ISO/IEC 17020:2000 and its independence criteria type A, and Ministry of Agriculture and Forestry supplementary technical requirements, and authorised by Ministry of Agriculture and Forestry to carry out services associated with export certification.
Low risk production sites	Production sites where codling moth was not detected at harvest or post harvest in the previous season.
Lure	Pheromone lure - see CAP
MAF	Ministry for Agriculture and Forestry (New Zealand NPPO)
Mating Disruption	A pheromone based crop protection method that relies on high concentration of sex pheromone to disrupt male moths detecting female moths
Organic Production	Production based on internationally certified (IFOAM) practices
PNZI	Pipfruit New Zealand Incorporated – the NZ pomefruit industry body
Production Site	A grower designated and NZ MAF registered property or part of a property with clearly defined and mapped boundaries on which apples are grown for export under this programme. This may be a group of blocks, a single block, or a portion of a block within a property.
Property	A single contiguous area of land, as identified by property valuation numbers(s), on which the apples are grown.
Phytosanitary Inspector	For the purposes of this compliance programme these are the staff members listed in an approved organisation's register of competent phytosanitary staff.



RPIN	Registered Property Identification Number – the unique number assigned to all export orchards linked to the property valuation roll number (R denotes a pomefruit crop)
CM sensitive market registered varieties	<p>Apple varieties within a registered production site that are grown and managed for the purpose of export under this programme. These will be varieties that the grower has identified on their registration form at registration (for example but not limited to: the Pacific series, Royal Gala, Fuji). If a registered production site contains more than one variety block of a variety intended for CM sensitive market registration then all variety blocks of that variety within the production site must be registered and treated as per the programme requirements for the entire season.</p> <p>This enables early season CM management across all varieties and specific management in varieties for CM sensitive markets while protecting market requirements for varieties outside this programme.</p>
CM sensitive market	Destination Countries requiring specific in-field pest management measures defined in this programme where compliance to the requirements can be verified by MAF as New Zealand's NPPO
TCE	Tray carton equivalent
Traps	Delta monitoring traps held in trees that when loaded with a sticky BASE and codlemone pheromone CAP are actively trapping codling moth.
Trapping Records	Weekly records of codling moth pheromone trap catches.

APPENDIX 3: Guideline on How to Define Production Sites

CM sensitive market production sites are, or may be, an amalgamation of blocks within your orchard. Blocks (sometimes referred to as management areas) are the divisions you recognise for spray diary purposes.

Growers need to think very carefully how/if they subdivide their orchard for this programme when defining registered production sites. It may be advisable to consult with your CM trap monitoring personnel and MAF approved organisation that monitors your compliance to this programme's requirements as a means of defining your final registered production site(s). In addition, your orchard map and details of the last season's CM trap catches may assist in the decision-making process.

Productions sites must be a minimum of 1 ha and monitored by pheromone trap at a trap density of 1 trap per ha. Where a part number is included in the area then the number is rounded according to 'Swedish rounding' i.e., 0.0-0.49 ha sites to be rounded DOWN (i.e. 2.35Ha = 2 ha for trapping purposes) and 0.5-0.99 is rounded UP such that an additional trap is required (i.e. 5.72Ha = 6 Ha for trapping purposes). The roads, access ways, etc. areas within the defined boundaries of registered production site must be included in the total number of hectares within the production site.

Growers have the option of registering their orchard as one single programme registered production site or more than one (multiple) programme registered production sites within their property. All production sites registered for this programme are identified with a 'T' after the Rpin.

- A single programme registered production site within an RPIN is identified with a **T** after the RPIN and the Alpha A. For example:

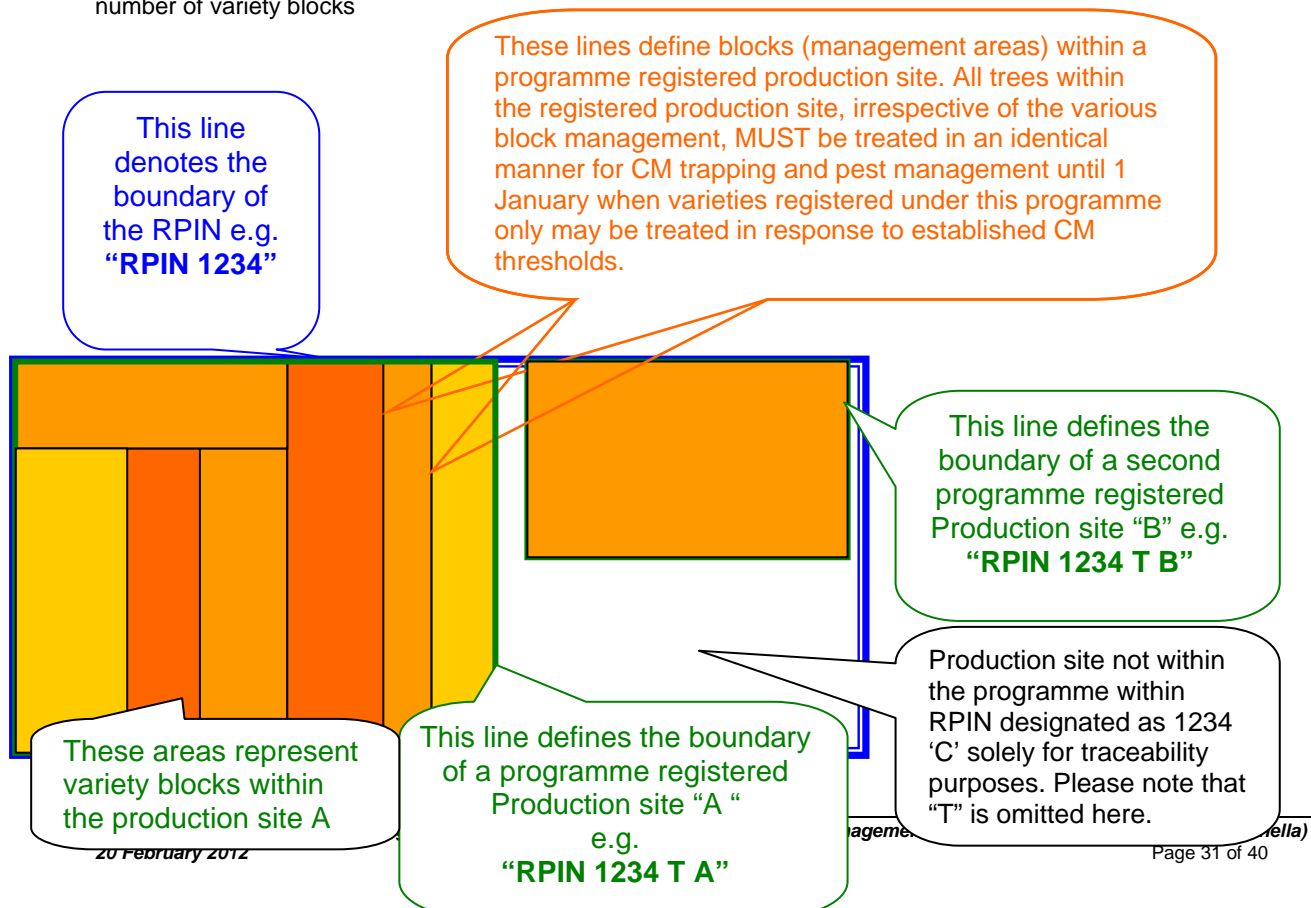
R4321 **TA**

- For each RPIN there may be more than one production sites each consisting of one or more management areas (blocks) - please refer Figure 2. If there are multiple programme registered production sites within an RPIN, these are identified on the register by an **alpha** after the RPIN **T**. For example:

R4321 **TA**; R4321 **TB**; etc.

If a programme registered production site contains more than one variety block of a variety intended for registration then all variety blocks of that variety within the production site must be registered and treated as per the programme requirements for the entire season.

Figure 2: An example of programme registered production sites registered within a property with a number of variety blocks



APPENDIX 4: Guideline for Codling Moth Pest Management

G2.1 Non-mating Disruption Programme

MANDATORY APPLICATION (all growers)

- Apply at least one pesticide spray for codling moth in spring/early summer in accordance with the codling moth BIOFIX model timing for your location:

Match®, Comic®, Mimic®, Prolan®, Altacor® or Prodigy®- to be applied just prior to first codling moth egg hatch i.e. between 80 and 110 degree days after your regional BIOFIX date. Applications in the green and yellow bands on the GDD model table on the PNZI website are acceptable. The timing of the first mandatory application may coincide with the need to use Calypso® for bronze beetle control. In this situation Calypso® may be used as the first (mandatory) application.

Highly recommended (but not auditable) SECOND generation CM APPLICATION (all North Island growers only)

- North Island growers are highly recommended to make a second application at BIOFIX + 700-780 GDD to address the start of egg laying for the second generation. Suitable products for application at this time are either a single application of, Altacor®, Comic®/Mimic®/Prolan® or Prodigy® [**Fuji strains, sciros, scired, sciearly (i.e. varieties likely to be sent to CM sensitive markets)**] two applications of CMGV no more than 10 days apart [**all varieties likely to have some UK/EU destined volume**]
 - If trap monitoring thresholds have been exceeded and a treatment applied **within the 7 days prior** to the 700GDD being achieved consider **the application to have been applied**
 - If the treatments were applied in response to a threshold **greater than 7 days prior** to the 700GDD being achieved **the reapplication should be considered especially where high CM pressure exists**
 - The rationale between the two applications is that cover will still be strong within the first 7 days but beginning to degrade over the latter 7 days hence the suggestion for additional cover
-
- **BIOFIX** dates (determined from long-term historical data) at a base of 10°C are:

- North Island	7 October
- South Island (Nelson/Marlborough)	21 October
- South Island (Otago/Canterbury)	1 November
-
- To track and monitor the accumulation of growing degree days refer to the link on the home page of the Pipfruit NZ Inc website: www.pipfruitnz.co.nz . This website is the only permissible means of identifying and tracking GDD's.
 - After the initial insecticide application, codling moth control in all districts must be based on pheromone trap catches. Applications of insecticide in response to trap thresholds and additional to those for mandatory requirements should be made to protect CM sensitive market varieties within production sites without needing to treat the whole production site.
 - Additional applications of Prodigy®, Prolan®, Altacor®, Avaunt®, Comic®, Mimic®, Delegate® or CMGV are required when the prescribed thresholds are exceeded.

There are however, considerations to make when selecting chemicals to use (See Important Notes).

IMPORTANT NOTES

1. Prodigy® applied to European destined varieties (such as Royal Gala) may need to be applied with the pre harvest Intervals (PHIs) required for private standards. If being applied to solely CM sensitive markets bound fruit can be applied **only once in the last 28 days**.
2. Comic® or Mimic® or Prolan® applied to European destined varieties (such as Royal Gala) will need to be applied with the PHIs required for private standards Refer PNZI website for PHI tool for private standards. If being applied to solely CM sensitive markets bound fruit can be applied **only once in the last 28 days**.
3. If **Calypso®** is applied for scale, mealybug or bronze beetle management it will be CM active and traps can be 'zeroed' after such an application.
4. Up to two applications of Altacor® can be applied per season.
5. Up to two applications of Avaunt® may be used per season
6. Only one application of Delegate® can be used – close to harvest **of late varieties only**, and not in blocks prone to WAA infestation. *There is strong evidence of severe interference of *Aphelinus mali* populations with this product and WAA blow outs can be expected following its use. WAA is also actionable for CM sensitive market supply- DO NOT use on early varieties.*
7. *Observe all pre harvest intervals as per the industry information for the various markets issued on the PNZI website annually and/or as printed documents such as wall charts*
8. Applications of all sprays for codling moth control must be applied to the whole production site up to 31 December. As of 1 January treat only CM sensitive market registered varieties. Applications of all sprays for codling moth control should be made **as soon as possible after trap thresholds** are exceeded and **must** always be applied within 6 days of trap thresholds being exceeded. This delay in applying sprays when thresholds are exceeded is the maximum allowed to account for adverse weather conditions and is generally neither desirable nor recommended.
9. The between-spray interval when thresholds are exceeded is 14 days for Prodigy™, Altacor®, Avaunt®, Comic®, Mimic®, Prolan and Delegate®
10. When a trap threshold has been exceeded following an application for an earlier threshold being exceeded, and the interval between applications is still within the product label recommendations, do not apply another treatment until the between-spray interval has elapsed (usually 14 days).
11. If high codling moth pressure occurs within or close to the production site, the spray thresholds are likely to be exceeded regularly requiring frequent spraying. Such production sites are advised to implement CM mating disruption or removal and destruction of the outside sources of codling moth is preferred if possible.
12. In high pressure scenarios *Maximum Residue Limits* (MRL's) for target markets and possibly alternative markets may be exceeded if codling moth management intervention is required late into the season. It is important that growers recognise the maximum number of sprays that can be applied from each chemical group and ensure that appropriate withholding periods are met. Again CM mating disruption is the preferred option.

13. If inclement weather prevents application by a required day then all records justifying the delayed application (e.g. local weather station data showing rain periods, wind speed/direction, etc.) must be kept. If there is a sensitive area close by - refer to the spray plan for your property that highlights sensitive areas.
14. If trap thresholds are exceeded within 28 days of harvest then codling moth management can be achieved by an application of Delegate® in late harvested varieties only and not those susceptible to woolly apple aphid. If trap thresholds are exceeded closer to harvest then Madex3®, Carpovirusine®, Virex® or Cyd-X® (Codling Moth granulosis virus) can be applied within the 14 day period immediately prior to harvest. See notes on the Codling Moth granulosis virus use below.

G2.2 Mating Disruption Programme (IFP and Organic Production)

Mating disruption is the preferred method of CM management for this programme and especially for production sites that have multiple varieties that cannot easily be separated for treatment purposes.

Mating disruption will provide a high level of codling moth control and suppress adult moth activity in and around treated blocks. However, codling moth infestation and damage may occur depending on nearby sources of codling moth. The performance of mating disruption as a control measure is also dependent on the size and shape of the treated area.

Mating disruption is best if applied district wide and growers are encouraged to discuss this with their neighbouring apple growers.

A suggestion for orchardists with walnut groves close by is to work with the land owners and supply CM mating disruption dispensers to those people to assist your programme.

G2.3 Codling Moth Pest Management by using Mating Disruption

Placement of dispensers:

- Dispensers must be present in the designated production site by the BIOFIX date for your region (refer G2.1).
- Mating disruption pheromone dispensers should be placed in the orchard at a density of 1000 dispensers per ha (Isomate® C+, NoMate®), or 800 dispensers per ha (4Play™) or 500 per ha (Isomate® CTT, CheckMate CMXL).

Note: Retain purchase records for audit purposes.

Note: These are the only dispensers approved at this time for the Apples to CM sensitive markets programme. There are new technologies being developed but because we require dispensers to achieve codlemone release profiles similar to Isomate® dispensers over the 5-6 months they are required, the risk of poor CM mating disruption by introducing alternative unproven dispenser technologies is too high and trial work is ongoing

- Dispensers must be placed singly onto tree branches in the top 10% of the canopy
- IFP production sites must apply insecticide as per G2.1. The organic production sites must apply CMGV as per G2.4.

G2.4	CMGV use
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IFP growers should use IFP approved chemicals including CMGV. For organic growers, in all districts one application of CMGV must be applied at the BIOFIX + 80-110 GDD dates for your region. A second application of CMGV is required within 10 days.

CMGV works best if it is built up in the orchard over a series of applications but will work to manage CM in more casual use scenarios.

The thresholds for high dose codling moth traps operated in the presence of mating disruption are as for non-mating disruption production sites. Once thresholds are exceeded growers must augment mating disruption with CMGV (Organic Production) or applications of IFP approved products.

Applications of all sprays for codling moth control should be applied as soon as possible after trap thresholds are exceeded and must always be applied within 6 days of trap thresholds being exceeded

North Island based organic growers may make a second CM generation application of CMGV at the BIOFIX + 700-780 GDD. This should consist of two applications no more than 10 days apart.

IMPORTANT NOTES

1. Codling Moth Granulosis Virus (CMGV, Madex3®, Carpovirusine®, Virex®, Cyd-X®) is susceptible to inappropriate storage and is UV sensitive. Growers will need to document and demonstrate appropriate product custody including:
 - Current product shelf life expiry date is within specification;
 - Age of product in stock (must be within manufacturers stated shelf life) (**Note:** purchase records);
 - Refrigeration of product until use.
2. CMGV (Madex3® Carpovirusine®, Virex®, Cyd-X®) is highly susceptible to UV degradation. The re-treatment interval is 10 days under field conditions. A UV-protectant such as milk powder (organic production) or a commercial UV protectant (IFP production) can increase the persistence of the product while a feeding stimulant (e.g. sugar) can improve the efficacy. Not all formulations recommend their use
3. Use of UV-protectants and feeding stimulants should be considered with any CMGV product to decrease the risk of larval entry into apples
4. Addition of protectants and stimulants does not extend the 10-days period
5. Organic growers should check with their certifier for permissible formulations of CMGV and permissible UV protectants and feeding stimulants.



APPENDIX 5: Grower Agreement with MAF Approved Organisation for Participation in New Zealand’s “MAF Phytosanitary Compliance Programme for verification of the on orchard pest management measures for codling moth (*Cydia pomonella*)” in 20__/__

PLEASE READ CAREFULLY BEFORE COMPLETING AND SIGNING

1. Grower Name..... (Please print)

Note: Grower is the individual responsible for the designated production site(s) and management of Codling Moth monitoring and control activities associated with the designated production site(s)

2. Property Identification Number (PIN) of designated production sites

RPIN	Orchard Name (if Applicable)	RPIN	Orchard Name (if Applicable)

Note. Attach a continuation sheet if required

3. Names of personnel who will survey designated production sites for Codling Moth and indication of role/competency

Name and Surname	Role/Competency	Previous competency

Note. Attach a continuation sheet if required

4. Name of the MAF Approved Organisation that monitors the compliance of the registered production site(s).

Packhouse: or

IVA: or

Pest Surveying Organisation:.....

Notes:

a) Tick **one only** and write the name of the approved organisation monitoring compliance of your registered production site(s).

b) If a grower has multiple sites with different monitoring arrangements for different sites then a separate agreement must be signed with each monitoring organisation and details of the sites the monitoring organisation is responsible for must be accurately recorded.

-
5. I intend to export Apples to following CM sensitive markets:
- a) b).....
- c) d).....
6. I agree to comply with the grower requirements specified within this Programme.
7. I understand that this Programme may change from time to time within the same growing/exporting year and that if requested I will advise and acknowledge to my compliance monitoring organisation (MAF Approved Organisation) that I have received and understood the Programme update and that I will implement Programme update(s) by the date required.
8. I agree that failure to comply with the grower requirements of this programme shall result in:
- a) The immediate removal of my affected production site(s) from this programme for the remainder of the season.
- b) All apples from rejected sites not been eligible for phytosanitary certification for export to CM sensitive markets in the current export season.
9. I agree to the MAF Approved Organisation listed in clause 4 and the Director of Import and Export Standards, MAF and/or its representatives
- a) Obtaining from me phytosanitary information relevant to this Programme;
- b) Making enquiries with regards my compliance to this Programme's requirements, including undertaking any traceback investigations as a result of codling moth or other pest interceptions;
- c) Collecting phytosanitary information from other individuals or organisations in connection to this Programme.
- d) Passing on the above information to IVAs and/or MAF for the purposes of this Programme.
10. I consent to publication of my programme compliance status in any publicly available information.
11. I consent to the details (including any personal information) relating to any codling moth or any other pest detections in relation to produce from my production site(s) to be shared with Pipfruit New Zealand to develop/refine pest management programmes.
12. I understand that if I fail to provide all or any of the information requested in connection with the programme, I will be removed from the programme.
13. I understand that under the Information Privacy Principles of the Privacy Act 1993, I have rights of access to, and correction of, personal information held in connection with participation within the MAF Apples to CM Sensitive Markets Export Phytosanitary Certification Programme.

Continued over page



14. I understand and agree that compliance with this Programme does not guarantee entry of my products into overseas markets and that MAF, its employees and agents are not liable for any loss or damage arising from refusal of the overseas authorities to permit entry of my products.

.....
 (Signature of Grower) (Date)

.....
 (Name - please print) (Title)

Verified by MAF Approved Organisation (non-IVA) responsible for the monitoring of compliance of the above listed productions sites

Name of Organisation:

.....
 (Signature of Verifier) (Date)

IVA Use Only

Received by....., of on
(Person) (IVA) (date)

IVA is responsible for (tick one):

Directly monitoring of compliance of the above listed productions sites

or

Monitoring compliance of the MAF AO while monitoring compliance of the above listed productions sites.....

Register of registered production sites updated Y / N

.....
 (Signature of IVA person) (Date)



**APPENDIX 6: MAF Compliance Agreement for Participation in New Zealand’s
“MAF Phytosanitary Compliance Programme for verification of
the on orchard pest management measures for codling moth
(*Cydia pomonella*)” in 20__/__**

**Application for Registration: MAF Approved Organisations
Monitoring Growers’ Compliance**

MAF AO Information Requirements:

Please use BLOCK LETTERS to provide the following information, which is required, if you intend to participate as a packhouse and / a coolstore in the “**MAF Phytosanitary Compliance Programme for verification of the on orchard pest management measures for codling moth (*Cydia pomonella*)**”.

Forward your application for registration to your Independent Verification Agency (AsureQuality or SGS). Refer Section 1 for contact details.

MAF AO should confirm with their IVA the costs associated to become registered for this Programme.

I [*state authorised packhouse / Pest surveying organisation officer name*]

.....

hereby apply for participation in MAF Phytosanitary Compliance Programme for verification of the on orchard pest management measures for codling moth (*Cydia pomonella*)

MAF Approved Organisation Name:

MAF Approved Organisation Contract of Approval number:.....

Postal Address:
.....

Telephone Number:..... Fax Number:

Postal Code:..... Email Address:

Physical location of the Main Office:

- (a) I/We agree to notify MAF via our Independent Verification Agency of any changes to the above details, including any changes to our register of grower production sites or their compliance status.
- (b) I/We understand that this registration does not entitle us to automatically undertake compliance monitoring activities on behalf of MAF without first becoming formally approved in accordance with the MAF Export Certification Standard “Organisation Requirements” and other applicable standards.



- (c) I/We understand that this programme may change from time to time within the same growing/exporting year and that I may be required to advise and acknowledge to my IVA that I have received and understood the programme update and that I will implement programme update(s) by the date required.
- (d) I consent to publication of my programme compliance status in any publicly available information.
- (e) I consent to the details (including any personal information) relating to any pest detections in relation to product from growers I monitor for compliance to be shared with Pipfruit New Zealand to develop/refine pest management programmes.
- (f) I understand that if I fail to provide all or any of the information requested in connection with the programme, I will be removed from the programme.
- (g) I understand that under the Information Privacy Principles of the Privacy Act 1993, I have rights of access to, and correction of, personal information held in connection with participation within the MAF Compliance Programme for the Export of Apples to Australia.
- (h) I understand and agree that compliance with this Programme does not guarantee entry of products from production sites I monitor for compliance into overseas markets and that MAF, its employees and agents are not liable for any loss or damage arising from refusal of the overseas authorities to permit entry of these products.

Signature (Applicant):.....

Date:

IVA Use Only

Application Received by..... of on
(Person) (IVA) (date)

MAF APPROVED ORGANISATION SYSTEM

Applicant have their MAF Approved system updated and approved to meet requirements of this programme:Y / N

MAF Approved system updated and approved on
(date)

Register of MAO updated on/...../..... By.....
(Signature of IVA person)