



# Agrichemical Management

## Checklist

Control Point	Description	Tick Appropriate Box	Option
<b>15.1 GAP – Crop Protection Selection/Programme</b>			
15.1.1 A current copy of the allowed products for use on the crop/s is held (i.e. the Crop Protection Standard)	A list is available for the commercial brand names of plant protection products (including their active ingredient composition, or beneficial organisms) that are authorised on crops being or which have been, grown on the farm within the last 12 months. NOTE: The Zespri Crop Protection Standard can be considered the complete list of all approved products as it is designed in line with all market requirements.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.1.2 All product application requirements detailed in the applicable Crop Protection Standard are adhered to and only allowed compounds applied when justified and as per the product label instructions	Comply with the Zespri CPS and hold Justified Approvals on file for any applications outside of the CPS. All the plant protection products applied are officially and currently authorised or permitted by the appropriate governmental organisation in the country of application. All the plant protection products applied to the crop are suitable and can be justified (according to label recommendations or official registration body publication) for the pest, disease, weed or target of the plant protection product intervention. If the producer uses an off label PPP, there shall be evidence of official approval for use of that PPP on that crop in that country.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.1.3 Invoices of all agrichemicals are kept	Invoices or packing slips of all plant protection products used shall be kept for record keeping and available at the time of the external inspection.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.1.4 The person selecting the agrichemicals can demonstrate their competence	The names and competencies of those persons offering crop protection advice must be recorded (i.e. who is deciding what product to apply and when). Experience and/or qualifications (e.g. a CV/letter outlining competence). Consider: GROWSAFE® certificate, books, bulletins, Industry Field Days attended). NOTE: The person making the decisions on spraying needs to make decisions based on the rules of the Zespri Crop Protection Standard. They should be able to demonstrate their competency based on qualifications or experience in the industry and attendance at information sessions etc.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.1.5 The contractor understands their role in regards to residue assurance and the importance of good agricultural practices in reducing the risk of residues occurring on fruit	Must comply with all requirements of the Crop Protection Standard. For kiwifruit this includes reading and understanding the information Zespri has provided on residue assurance and how the residue testing programme works.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
<b>15.2 Handling</b>			
15.2.1 All personnel who handle and apply agrichemicals hold the appropriate GROWSAFE® certificate	There are documented and available copies of the GROWSAFE® certificates of all the personnel who handle and apply agrichemicals.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.2.2 Safety advice for substances hazardous to worker health is available	Keep Material Safety Data Sheets (MSDS) readily accessible for all products used (or stored on the orchard).	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY



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15.2.3	All workers who have contact with agrichemicals or other hazardous substances are offered the possibility to be submitted to annual health checks	Contract sprayers and others spending more than 30hr per month spraying should evaluate the risk posed by the type of pesticides they use and detail this in their Health & Safety Risk Assessment or Health and Safety Plan. So check if this is documented. All spray operators should know the symptoms indicating a poisoning.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	BEST PRACTICE
15.2.4	There are documented procedures dealing with re-entry times	There are clear documented procedures based on the label instructions that regulate all the re-entry intervals for plant protection products. Special attention should be paid to workers at the greatest risk, i.e. pregnant/lactating workers, and the elderly. Where no re-entry information is available on the label, there are no specific minimum intervals, but the spray shall have dried on the plants before workers re-enter the growing areas.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.2.5	Notification been given to the occupiers of all adjoining properties and road side signage erected prior to all proposed spray applications in accordance with local authority regulations	There must be a notification system in place for all adjoining properties. Notification needs to be made at least 12 hrs before application, preferably earlier. This detail should be in the contractors spray plan. NOTE: Verbal or written notification shall be given to all adjoining properties prior to any spray application, regardless of product.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.2.6	Surplus application mixes or tank washings are disposed of in a way that does not compromise food safety or the environment	The records of the application of surplus mix and tank washings that is not applied over the crop must be kept. Options for disposal of surplus shall be written into the contractors spray plan. NOTE: If applying over untreated land then need to check this is in compliance with local legislation and not near water or any other environmentally sensitive areas.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.2.7	Active measures are taken to prevent pesticide drift and these are documented	Use correct spray equipment, spray in correct weather conditions, check what neighbours are growing, design orchard to prevent drift. Notify neighbours and take any other measures appropriate to prevent spray drift. These measures shall be recorded in your Spray Plan	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.2.8	If concentrate agrichemicals are transported on or between orchards, they are transported in a safe and secure manner	For large quantities depending on the product a specially prepared vehicle may be required by national legislation. When legislation does not exist the producer shall in any case guarantee that the PPPs are transported in a way that does not pose a risk to the health of worker(s) transporting them.  For minor quantities depending on product they shall be contained a hermetic container which is not in the vehicle drivers compartment with, first aid kit, fire extinguisher, protective clothing i.e. gloves, breathing mask and eye goggles or face shield. All transport requirements should be in compliance with all relevant codes of practice and national legislation.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.2.9	Methods of application documented in the Crop Protection Standard have been complied with	Ensure that application equipment uses appropriate technology in order to be efficient and reduce the environmental impact wherever possible. AI nozzles shall be used when required (e.g. for hydrogen cyanimide, bactericides)	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY



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15.2.10 The contractor adheres to anti-resistance product use requirements as per the Crop Protection Standard and/or the product label	<p>When the level of a pest, disease or weed requires repeated controls in the crops, there is evidence that anti-resistance recommendations (where available) are followed.</p> <p>Follow the Zespri Crop Protection Programme and label recommendations to restrict the over-use of products. Adhere to rules around the use of certain products in the CPS as to the number of applications allowed before switching to another product.</p> <p>Follow the Zespri Justified Approval process if applications are outside of the Crop Protection Programme.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
<b>15.3 Application Equipment and Protective Clothing</b>			
15.3.1 Spray application equipment kept in good condition	The equipment is kept in a good state of repair with documented evidence of up to date maintenance sheets for all repairs, oil changes, etc. undertaken. e.g. plant protection product sprayers.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.3.2 Spray application equipment is calibrated at least annually and records of calibration are kept	A record of annual calibration must be kept. The person calibrating the equipment needs to be able to show that they are competent to do so. This may be through having a documented calibration procedure to follow, C.V outlining competency.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.3.3 The contractor is involved in an independent calibration-certification scheme, where available	This can be met by sourcing an independent GROWSAFE® Registered Calibrator or by someone (including the Grower themselves) that has the GROWSAFE® Advanced appropriate certificate, or at a minimum successfully completed the calibration module within the advanced certificate. Otherwise there is no other scheme currently available.	<input type="checkbox"/> YES <input type="checkbox"/> NO	BEST PRACTICE
15.3.4 The equipment used for measuring and mixing agrichemicals is calibrated annually and records are kept	The appropriate measuring and mixing equipment must be available it must be calibrated annually (can be done with another measuring jug if it is glass or has been measured against a verified scale or test weight). Records of the calibration must be kept.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.3.5 All employees are equipped with suitable protective clothing in accordance with legal requirements and/or label instructions	<p>Complete sets of protective clothing which enable label instructions and/or legal requirements and/or requirements as authorized by a competent authority to be complied with are available, utilised and in a good state of repair. To comply with label requirements or application of chemicals, this may include some of the following: rubber boots or other appropriate footwear, waterproof clothing, protective overalls, rubber gloves, face masks, appropriate respiratory equipment (including replacement filters), ear and eye protection devices etc. as required by label or application of chemicals.</p> <p>NOTE: Ensure that all workers are equipped with the appropriate protective clothing for their job."</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY



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Control Point	Description	Tick Appropriate Box	Option
15.3.6	<p>Protective clothing and equipment (e.g. spray tanks, knapsacks) is cleaned after use and is stored in such a way as to prevent product contamination</p> <p>Protective clothing is kept clean according to the type of use and degree of potential contamination and in a ventilated place. Cleaning protective clothing and equipment includes separate washing from private clothing. Wash reusable gloves before removal. Dirty and damaged protective clothing and equipment and expired filter cartridges shall be disposed of appropriately. Single use items (e.g. gloves, overalls) shall be disposed of after one use. All protective clothing and equipment including replacements filters etc, shall be stored outside of the plant products storage facility and physically separated from any other chemicals that might cause contamination of the clothing or equipment.</p> <p>NOTE: Wash contaminated clothing and equipment separately from private clothing. Keep clean according to type of use and degree of potential contamination. Store protective equipment and clothing outside the outside the chemical store and away from chemicals in a well ventilated area. Use filter cartridges etc. as per manufacturers standards.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
<b>15.4 Mixing and Measuring</b>			
15.4.1	<p>The correct handling and filling procedures are followed when measuring and mixing agrichemicals, as stated on the label</p> <p>Facilities, including appropriate measuring equipment, shall be adequate for mixing plant protection products, so that the correct handling and filling procedures, as stated on the label, can be followed.</p> <p>The label instructions must be followed when measuring and mixing and only GROWSAFE® certified personnel are allowed to handle agrichemicals.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.4.2	<p>If there are water sources used other than from the orchards that are sprayed is there a water risk assessment completed?</p> <p>Ensure all water used for mixing chemicals must be tested to ensure that it meets the criteria for clean water. If the contractor uses water other than the orchards, the water source must be part of the Risk Assessment, with an annual test as part of the control measures.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
15.4.3	<p>If other water sources are used then are they tested based on the outcome of the risk assessment?</p> <p>NOTE: follow from the MSO guidelines under water quality and water conservation – CCP 6</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY
<b>15.5 Disposal</b>			
15.5.1	<p>The disposal of empty agrichemical containers, or items contaminated with agrichemicals, complies with local regulations, occurs in a manner that avoids exposure to humans and contamination of the environment</p> <p>Producers shall dispose of empty PPP containers using a secure storage point, a safe handling system prior to the disposal, and a disposal method that complies with applicable legislation and avoids exposure to people and contamination of the environment (watercourses, flora and fauna). All the relevant national, regional and local regulations and legislation, if such exist, have been complied with regarding the disposal of empty PPP containers.</p> <p>NOTE: Dispose of empty containers as per local legislation ensuring that exposure to humans and the environment is avoided. Hold receipts to demonstrate this. Record disposal methods in your Spray Plan.</p> <p>NOTE: Receipts to demonstrate how containers are disposed of must be retained.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY



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15.5.2 Official collection and disposal systems are used and empty containers are stored securely, labelled and handled according to the rules of the system	Where official collection and disposal systems exist, there are documented records of participation by the producer. All the empty plant protection product containers, once emptied, shall be adequately stored, labelled, handled and disposed of, according to the requirements of official collection and disposal schemes, where applicable. There is a designated secure store point for all empty containers prior to disposal that is isolated from the crop and packaging materials (i.e. permanently marked via signage and locked with physically restricted access for persons and fauna).	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.5.3 Empty containers are rinsed at least three times with water and the wash-water from empty containers is disposed of in an environmentally safe manner	Pressure rinsing equipment for plant protection product containers shall be installed on the plant protection product application machinery there is pressure-rinsing equipment for containers or there are clear written instructions to rinse each container 3 times prior to its disposal.  Either via the use of a container-handling device or via written procedure for the application equipment operators, the rinsate from the empty plant protection product containers is always put back into the application equipment tank when mixing or disposed of in a manner that does not compromise either food safety or the environment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.5.4 Obsolete agrichemicals and any other hazardous substances and materials are securely maintained, identified and disposed of by authorised or approved channels	There are records that indicate that obsolete plant protection products have been disposed of via officially authorised channels. When this is not possible, obsolete plant protection products are securely maintained and identifiable.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.5.5 Empty agrichemical containers are not used for purposes other than containing and transporting the identical product	Agrichemical containers must not be used around the orchard for any purpose other than to hold or transport the identical product.  Re-use of containers shall be thoroughly cleaned before use and shall not be used to contain any substance for human or animal consumption. If a container is re-used for other purposes, it shall only be refilled with a like agrichemical and shall be provided with an appropriate label.  NOTE: refer to NZS Management of Agrichemicals (NZS 8409:1999), clause 6.5.4.1.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
<b>15.6 Agrichemical Storage</b>			
15.6.1 Agricultural compounds are stored in a location that is sound and secure, in accordance with local regulations, including the display of appropriate signage	The plant protection product storage facilities are built in a manner which is structurally sound and robust. Storage capacity shall be appropriate for the highest amount of PPPs that need to be stored during the PPP application season, and the PPPs are stored in a way that is not dangerous for the workers and does not create a risk of cross- contamination between them or with other products.	<input type="checkbox"/> YES <input type="checkbox"/> NO	MANDATORY



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15.6.2 Agricultural compounds are stored in a location that is well lit, well ventilated, and appropriate to temperature conditions	<p>The plant protection products are stored according to label storage requirements. The PPP storage facilities have sufficient and constant ventilation of fresh air to avoid a build-up of harmful vapours.</p> <p>They have or are located in areas with sufficient illumination by natural or artificial lighting to ensure that all product labels can be easily read while on the shelves.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.3 Agricultural compounds are stored in a location that is away from other materials	The minimum requirement is to prevent cross contamination between plant protection products and other surfaces or materials that may enter into contact with the edible part of the crop by the use of a physical barrier (wall, sheeting etc.).	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.4 Storage shelving is made of non-absorbent material	The plant protection product storage facilities are equipped with shelving that is not-absorbent in case of spillage (e.g. metal, rigid plastic, or covered with impermeable liner, etc.).	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.5 Liquids are stored on shelves below powders at all times	All the plant protection products that are liquid formulations are stored on shelving that is never above those products that are powder or granular formulations.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.6 Agricultural compounds are stored in their original packaging and grouped according to type	<p>All the plant protection products that are currently in the storage facility are kept in the original containers and packs. In the case of breakage only, the new package shall contain all the information of the original label.</p> <p>Keep products in their original packaging and grouped together by product type. In case of breakage, ensure any new packaging that the product is transferred into is labelled.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.7 Agricultural compounds that are approved for use on the crop are stored separately, within the store, from those used for other purposes or other crops	<p>Plant protection products used for purposes other than for registered and/or certified crops (i.e. for in the garden) are clearly identified and stored separately in the plant protection product store.</p> <p>Keep all products used on other crops clearly labelled and separated in the store. If multiple crops are sprayed then make sure that the products are separated in the store and labelled so that it is clear which products are allowed for use on which crop.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.8 The store is able to retain spillage	The plant protection product storage facilities have retaining tanks or products are banded according to 110% of the volume of the largest container or stored liquid, to ensure that there cannot be any leakage, seepage or contamination to the exterior of the facility.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.9 There are facilities to deal with spillage in the store	The storage facilities and all designated fixed filling/mixing areas are equipped with a container of absorbent inert materials such as sand, floor brush and dustpan and plastic bags that must be in a fixed location to be used exclusively in case of spillage of plant protection product.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY



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15.6.10 Keys and access to the store are limited to those workers with training in the handling of agrichemicals	<p>The storage facilities are kept locked and physical access is only granted in the presence of persons who can demonstrate training in the safe handling and use of plant protection products.</p> <p>Keep access to the store restricted to those persons appropriately trained (i.e. GROWSAFE®).</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.11 The product inventory is documented and readily available	<p>The stock (type and amount of PPPs stored – number of units, e.g. bottles is allowed) shall be updated within a month after there is a movement of the stock (in and out). The stock update can be calculated by registration of supply (invoices or other records of incoming PPPs) and use (treatments/applications), but there shall be regular checks of the actual content to avoid deviations with calculations.</p> <p>Keep an up to date inventory for the store available (one copy for the store and one kept elsewhere) and update this monthly.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.12 There are facilities to deal with accidental operator contamination within 10m of the agrichemical store, the facilities are accessible at all times	<p>All plant protection product storage facilities and all filling/mixing areas have eye washing amenities, a source of clean water at a distance no farther than 10m, and a first aid kit containing the relevant aid material (e.g. a pesticide first aid kit might need aid material for corrosive chemicals or alkaline liquid in case of swallowing, and might not need bandages and splints), all of which are clearly and permanently marked via signage.</p> <p>NOTE: Keep a source of clean water accident and emergency procedures, and a first aid kit within 10m of the plant protection product store. Ensure a first aid kit is accessible whenever any activities are being carried out on the orchard.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY
15.6.13 Are accident and emergency procedures visually displayed (within 10m of the spray shed, mixing and filling areas, where applicable) and communicated to all associated with orchard activities?	<p>Display accident and emergency procedures in a location visible to people on the orchard (within 10m of the plant protection product store, mixing areas and all filling stations). WorkSafe requires businesses to hold an accident and emergency response plan which must be tested at least every 12 months (or within three months if there is a change to the plan).</p> <p>The content of your accident and emergency response plan must cover the WorkSafe requirements and include Safety Data Sheets (SDS) for each hazardous substance stored onsite: <a href="https://worksafe.govt.nz/topic-and-industry/hazardous-substances/managing/emergency-plans/">https://worksafe.govt.nz/topic-and-industry/hazardous-substances/managing/emergency-plans/</a></p> <p>SDSs must include recording how to respond to emergencies based on the hazardous substance product and stored in a location where workers and emergency services can easily find them.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	MANDATORY