

Agricultural Machinery

Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	



RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	

Risk Rating & Required Action:	
4A	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
3H	Review and approve additional controls for the task parts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures. Monitor and keep records.

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Governance, WHS Leadership and Legal Compliance	<ul style="list-style-type: none"> Lack of documented WHS policy specific to agricultural machinery operations Failure to clearly define officer due diligence obligations under WHS Act 2011 Inadequate consultation with workers and HSRs regarding plant safety No systematic review of compliance with WHS Regulation (plant, noise, hazardous chemicals) Poor integration of contractor and labour-hire workers into the WHS management system Insufficient resourcing (time, budget, personnel) allocated to WHS for machinery operations 	4A	<ul style="list-style-type: none"> Establish and maintain a documented WHS management system that specifically addresses agricultural plant (automatic seeders, fertiliser spreaders, harrows, harvesters, pruning machinery and seed drills) in line with WHS Act 2011 and WHS Regulation Define and document roles, responsibilities and accountabilities for officers, PCBUs, managers, supervisors and workers in relation to plant safety and maintenance systems Implement a formal WHS governance framework including regular WHS committee meetings, worker consultation processes and mechanisms for raising safety concerns related to machinery Undertake periodic compliance audits against WHS legislation, relevant Australian Standards (e.g. AS 4024 series for safeguarding of machinery) and manufacturer requirements for all agricultural machinery Integrate contractor and labour-hire onboarding procedures so that external workers using machinery are integrated into site-specific WHS and plant safety systems Set measurable WHS objectives and KPIs for machinery-related incidents, maintenance completion rates and training compliance, and review these at management meetings Ensure adequate budget and staffing for inspection, preventative maintenance, training, guarding upgrades and safety monitoring of all agricultural plant 	2M
2. Plant Procurement, Design and Selection of Agricultural Machinery	<ul style="list-style-type: none"> Purchase of machinery that does not comply with Australian Standards or WHS Regulation for plant Selection of equipment that does not meet required guarding, emergency stops or safety interlocks Inadequate consideration of ergonomics and operator visibility (blind spots on large seed drills or spreaders) Supplier not providing adequate documentation, manuals and risk information Incompatibility between tractors, hydraulic systems and mounted / towed implements (e.g. seed drills, fertiliser spreaders, pruners) Failure to specify noise, vibration and dust control at procurement stage 	4A	<ul style="list-style-type: none"> Develop a formal plant procurement procedure requiring pre-purchase WHS evaluation of new or second-hand agricultural machinery against AS 4024 series, WHS Regulation and manufacturer specifications Mandate that all new machinery (e.g. automatic seeders, fertiliser spreaders, Spagnolo pruners, harrows) be supplied with CE or equivalent certification and compliant guarding, emergency stop systems and safety interlocks Include WHS performance criteria (noise levels, vibration emissions, dust control, ergonomic seating, visibility and lighting) in tender and purchase specifications Require suppliers to provide detailed operator manuals, maintenance manuals, risk assessments and training materials as part of purchase contracts Ensure compatibility assessments are conducted for tractors and attachments (PTO ratings, hydraulic flows, mounting systems) before procurement and commissioning Implement a pre-delivery inspection process using a plant safety checklist before machinery is accepted onto site Restrict purchase of non-standard or modified equipment unless reviewed and authorised by a competent person (e.g. engineer or plant specialist) 	2M
3. Commissioning, Installation and Modification of Plant	<ul style="list-style-type: none"> Improper installation of mounted or trailed machinery (seed drills, spreaders, pruners) leading to mechanical failure or detachment 	4A	<ul style="list-style-type: none"> Establish a commissioning procedure requiring a site-specific risk assessment and sign-off by a competent person before machinery is put into routine service 	2M

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	<ul style="list-style-type: none"> • Bypassing of factory-installed safety devices or interlocks during set-up • Uncontrolled commissioning trials in paddocks without risk assessment or exclusion zones • Unauthorised modifications to guarding, PTO shafts, hydraulic systems or controls • Failure to verify stability and load ratings when fitting heavy pruners or seeders to front or rear linkage • Lack of verification that emergency stops and isolation points function correctly 		<ul style="list-style-type: none"> • Require installation and set-up of complex plant (e.g. automatic seeders, Harvester Mounted Pruners, Spagnolo Multi-Rotary Head Pruner, Spagnolo SG Spur Pruner) to follow manufacturer instructions and be supervised by trained personnel or authorised dealer technicians • Implement a formal change management and modification approval process for any alterations to guarding, PTO arrangements, hydraulics, electrical systems or control layouts • Develop commissioning checklists that include verification of emergency stop operation, isolation points, guarding integrity, PTO shielding and correct adjustment to tractors • Designate controlled commissioning areas with exclusion zones, traffic management and emergency procedures for first-use trials • Maintain an asset register that records commissioning dates, responsible persons, modifications and engineering verifications for all agricultural machinery 	
4. Plant Registration, Asset Management and Documentation Control	<ul style="list-style-type: none"> • Incomplete or inaccurate plant register for tractors, seed drills, spreaders, harrows and pruning attachments • Loss or non-availability of manuals, safety data and maintenance records • Failure to identify plant requiring registration or notification under WHS Regulation • Lack of traceability of inspection, repairs and component replacement • No system to manage software/firmware updates on machines automatic seeders or precision applicators 	3H	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	1L
5. Operator Competency, Licensing and Training Systems	<ul style="list-style-type: none"> • Operators using complex machinery (automatic seeders, seed drills, pruners) without formal competency assessment • Inadequate training on safe use of PTO drives, hydraulics and guarding systems • Over-reliance on informal, on-the-job training with no verification of learning 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> • Non-English speaking workers unable to understand technical instructions and safety signage • No refresher training program for seasonal workers or contractors • Lack of competence in emergency response, isolation and lock-out procedures 		[REDACTED]	
6. Maintenance, Inspection and Pre-Start Systems	<ul style="list-style-type: none"> • Inadequate preventative maintenance leading to mechanical failure of seeders, spreaders, drills, pruners and harrows • Failure to identify worn guards, missing PTO shields and damaged hydraulic hoses • No structured pre-start inspection process for tractors and implements • Unplanned breakdown maintenance performed in unsafe field conditions • Use of non-genuine or incompatible parts affecting safety systems • Poor lubrication and adjustment of moving parts increasing entanglement or jamming risks 		[REDACTED]	2M
7. Guarding, PTO, Hydraulic and Energy Isolation Controls	<ul style="list-style-type: none"> • Inadequate guarding on moving parts (chains, gears, augers, tines, blades, pruning heads) • Removal or non-replacement of PTO guards for convenience • Hydraulic injection injuries from high-pressure leaks on seed drills and pruners 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> • Failure to isolate energy sources before clearing blockages or performing maintenance • Unlabelled or inaccessible isolation points on tractors and implements • Stored energy hazards in raised implements (hydraulic creep, gravity fall) 		[REDACTED]	
8. Traffic Management, Field Layout and Mobile Plant Interaction	<ul style="list-style-type: none"> • Collisions between tractors, harvesters, seeders and light vehicles in paddocks and laneways • Poorly defined travel routes for large seed drills, harrows and spreaders • Limited visibility from cabs when operating with wide or rear-mounted implements • Uncontrolled public access to farm tracks and paddocks where machinery is operating • Pedestrian workers entering exclusion zones around moving plant or pruning heads 	4A	[REDACTED]	2M
9. Seasonal Work Planning, Fatigue and Scheduling	<ul style="list-style-type: none"> • Excessive working hours during seeding, fertilising and pruning seasons leading to fatigue-related errors • Insufficient breaks when operating monotonous tasks such as seed drilling and harrowing over long shifts • Night operations with reduced visibility and supervision • Pressure to complete work before weather changes, encouraging risk- 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> taking and shortcutting safety procedures Inadequate staffing levels leading to lone working with complex machinery 		[REDACTED]	
10. Environmental Conditions, Terrain and Seasonal Hazards	<ul style="list-style-type: none"> Operation of machinery on steep or uneven ground increasing rollover and instability risk Wet, boggy or loose soil conditions affecting traction and braking of tractors with mounted seeders or pruners Dust, heat and UV exposure affecting operator health and concentration Fog, rain or low light reducing visibility during fertiliser spreading or harrowing Unidentified underground services (irrigation lines, power, telecom) impacted by drilling or cultivation Debris, rocks and stumps causing equipment damage and sudden movements 	3H	[REDACTED]	1L
11. Chemical, Biological and Dust Exposure from Seeding and Fertilising	<ul style="list-style-type: none"> Exposure to fertiliser dust, treated seed coatings and other agrochemicals during loading and operation of seeders and spreaders Inadequate systems for handling, storage and mixing of fertilisers and seed treatments Lack of information on health hazards associated with specific products used in seed drills and automatic seeders 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> Inhalation of organic dust and spores when harrowing or drilling into dry, contaminated soils Cross-contamination between food-producing areas and chemical storage/handling zones 		[REDACTED]	
12. Noise, Vibration and Ergonomics in Machinery Operation	<ul style="list-style-type: none"> Prolonged exposure to high noise levels from tractors, seed drills, spreaders and pruners Whole-body vibration from operating on rough paddocks for extended periods Awkward postures when monitoring seeding equipment or adjusting pruning heads Repetitive manual tasks in attaching implements, loading seed and fertiliser or changing pruning heads Poor cab ergonomics leading to musculoskeletal disorders 	3H	[REDACTED]	1L
13. Contractor, Labour-Hire and Seasonal Worker Management	<ul style="list-style-type: none"> Contractors operating machinery without alignment to the host farm's WHS systems Inconsistent training, supervision and competency verification for seasonal workers Poor communication of property-specific hazards, no-go zones and emergency arrangements to external personnel Gaps in responsibility between PCBUs in a shared-duty environment (e.g. labour-hire workers using host farm machinery) 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> Contractor maintenance practices not meeting site standards for guarding and PTO safety 		[REDACTED]	
14. Emergency Preparedness and Incident Management for Machinery Operations	<ul style="list-style-type: none"> Delayed response to entanglement, crush or amputation incidents involving moving machinery parts Inadequate emergency communications in remote paddocks and orchards Lack of clear procedures for machinery fires, fuel spills or chemical releases from seed treatment systems Under-reporting of near misses and minor incidents preventing learning and improvement Emergency services unable to locate machinery operating areas promptly 	3H	[REDACTED]	1L
15. Information, Procedures, Signage and Communication Systems	<ul style="list-style-type: none"> Outdated or unclear safe operating procedures (SOPs) for seed drills, fertiliser spreading, harrowing and pruning operations Critical safety information not readily accessible in the field or in cabs Inconsistent communication between supervisors and operators regarding daily hazards and changes in plans Inadequate signage on machinery and at property access points regarding hazards and PPE requirements Reliance on verbal instructions only, leading to misunderstanding among diverse workforce 	3H	[REDACTED]	1L

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			[REDACTED]	
			[REDACTED]	
			[REDACTED]	

SAMPLE

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory

Work Health and Safety Act 2011
 Work Health and Safety Regulations 2011
 Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>
 Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>
 Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

Victoria

Occupational Health and Safety Act 2004
 Occupational Health and Safety Regulations 2017
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

New South Wales

Work Health and Safety Act 2011
 Work Health and Safety Regulations 2025
 Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

Western Australia

Work Health and Safety Act 2020
 Work Health and Safety Regulations 2022
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011
 Work Health and Safety (National Uniform Legislation) Regulation 2011
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>
 Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

South Australia

Work Health and Safety Act 2012 (SA)
 Work Health and Safety Regulations 2012 (SA)
 Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

Tasmania

Work Health and Safety Act 2012
 Work Health and Safety (Transitional and Consequential Provisions) Act 2012
 Work Health and Safety Regulations 2012
 Work Health and Safety (Transitional) Regulations 2012
 Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.