

## Horticulture Water Quality Risk Framework 2017-2022

Soil management (weighting)	Relative water quality risk			
	Lowest risk (A)	Moderate – Low risk (B)	Moderate risk (C)	High risk (D)
	Innovative	Best practice	Minimum standard	Superseded
<b>Controlling runoff using buffers (5%)</b>	Buffers in place, these provide good protection of waterways at ALL times OR Not applicable.	Buffers in place, farm run-off is managed prior to any waterway or wetland in the majority of instances.	Buffers in place but concentrated flow occurs.	There are no buffer zones on the property and waterways receive run-off from productive areas.
<b>Fallow management (35%)</b>	Fallow cropping / promotion of ground cover conducted at all times to provide full protection.	Crop residue retained during fallow period/grassed inter-rows maintained to reduce losses.	Limited soil protection practices in place for fallow periods with run-off evident/ weedy fallow / minimum till bare fallow.	No soil protection measures in place for fallow periods/ cultivated bare fallow.
<b>In-field erosion control (20%)</b>	Crops are planted across slope with regular spaced wide vegetation strip cropping.	Crops are planted down slope with regular spaced vegetation strip cropping.	Crops are planted across slope with irregular spaced vegetation strip cropping.	Crops are planted down slope with no other strategies in-place.
<b>Inter-row management (25%)</b>	Inter-rows are managed with ground cover (selected plants species) OR Not applicable.	Inter-rows are managed with ground cover (opportunistic plants).	Inter-rows are bare but not cultivated.	Inter-rows are cultivated.
<b>Roadway and headland maintenance (10%)</b>	Roadways and headlands are strategically designed, constructed and maintained to minimise erosion.	Roadways and headlands are maintained with minimal erosion issues.	Minimal maintenance of roadways and headlands occurs and erosion issues remain.	Roadways and headlands are not maintained and erosion is an issue.
<b>Sediment traps (5%)</b>	Not applicable.	Structures that collect sediment are of sufficient size and strategically located. These are working effectively and maintenance is carried out OR not required.	Structures that collect sediment are of sufficient size and strategically located but maintenance is an issue and sediment continues to be lost.	No structures that collect sediment are in place and sediment loss is an issue.



Pesticide management (weighting)	Relative water quality risk			
	Lowest risk (A)	Moderate – Low risk (B)	Moderate risk (C)	High risk (D)
	Innovative	Best practice	Minimum standard	Superseded
<b>Calculating pest and crop chemical requirements (30%)</b>	Using own recorded crop monitoring results, action thresholds and labelled rates in line with crop monitoring consultant recommendations/implementation of Integrated Pest Management practices.	Using own recorded crop monitoring results, action thresholds and labelled rates.	Follow chemical / fertiliser supplier recommendations.	Follow other grower advice and / or calendar applications regardless of weather conditions.
<b>Reducing chemical loss to runoff and drift (30%)</b>	Applied at times of low risk using low drift nozzles and low volume applicators in conjunction with wind breaks and recorded weather data.	Spray and OR incorporate at times of low risk.	Spray when opportunity arises regardless of need.	Spray during high risk times.
<b>Integrated Pest Management (IPM) (40%)</b>	A full complement of Integrated Pest Management practices are implemented with minimal pesticide usage.	Have implemented a number of Integrated Pest Management practices but still want to reduce pesticide use further.	Use some Integrated Pest Management strategies. The plan is to move towards reducing chemical usage but has not been implemented.	No Integrated Pest Management used - full chemical use on a calendar basis regardless of need.

Nutrient management (weighting)	Relative water quality risk			
	Lowest risk (A)	Moderate – Low risk (B)	Moderate risk (C)	High risk (D)
	Innovative	Best practice	Minimum standard	Superseded
<b>Soil testing (10%)</b>	Frequent soil testing (more than once per year) to fulfil nutrient budgeting requirement across entire farm.	Soil tests completed annually across entire farm.	Infrequent soil testing conducted (2 years or more between tests).	No soil testing conducted.
<b>Leaf testing (10%)</b>	Leaf tests conducted at strategic crop stages in line with nutrient budgeting across entire farm.	Leaf testing completed annually across entire farm.	Infrequent leaf analysis conducted (once every few crops or crop cycles).	No leaf testing conducted.
<b>Nutrient budgeting and recording (30%)</b>	If available, industry recognised software package (Avoman), at paddock scale, based on soil tests, yield data and other sources of nutrient.	Grower developed spreadsheet, sometimes at individual paddock scale, using soil tests and removal calculators.	Nutrient budgeting is paper based at whole farm scale via soil testing.	No nutrient budgeting or recording conducted.
<b>Fertiliser application method (40%)</b>	Various fertiliser application methods used (fertigation, incorporation and / or foliar) with automated fertigation being dominant.	Various fertiliser application methods used (fertigation, incorporation and / or foliar) in accordance with weather conditions.	Fertiliser is surface applied - mixture of broadcast and banding.	Fertiliser is surface applied - broadcasting fertiliser spreader.
<b>Calculating fertiliser rates (10%)</b>	Application rates based on frequent soil and leaf testing using a nutrient budget on a block by block basis.	Application rates based on industry approved nutrient monitoring program.	Application rates based on limited testing information / supplier recommended rates.	Historical application rates applied across entire farm.

Water management (weighting)	Relative water quality risk			
	Lowest risk (A)	Moderate – Low risk (B)	Moderate risk (C)	High risk (D)
	Innovative	Best practice	Minimum standard	Superseded
<b>Irrigation scheduling (30%)</b>	Regular use of objective tools to modify irrigation applications.	Intermittent use of objective tools.	Subjective tools used.	Scheduling tools not used.
<b>Matching irrigation interval and volume to crop requirements and soil limitations (50%)</b>	Automated irrigation system, application rate suited to crop stages and soil type.	Manually operated irrigation system, application rate suited to crop stages and soil types.	Irrigation application rates vary with crop stage only.	Same strategy is used across whole farm to calculate irrigation interval and volume.
<b>Water reuse (20%)</b>	Full water reuse. Water quality tests completed regularly OR No opportunity.	Full water reuse / no water quality testing.	Water reused on a limited basis with no water quality test conducted.	No water reuse.