Best Management Practice for Irrigated Viticulture: Equipment, Machinery and Vehicle Management

August 2004

Activity, Product or Service	Aspect	Objective	Achieved by Best Management Practice	Indicators	Checklist	
		To meet legal responsibilities:	**Research legal and regulatory obligations plus Australian Standards from established facility**			
Use of tractors	Traffic – soil disturbance, spread of chemicals, nutrients, pathogens, weeds via wheels, noise, visual, fumes, dust, Potential for fuel, oil leaks	Minimise the impact of machinery use whilst conducting vineyard operations, reducing soil compaction/erosion , contamination of land, discomfort, inconvenience to residence, and limit impact on local biodiversity.	1. Provide a system to identify the most suitable equipment for the job at purchase and use stages including energy efficiency. 2. Use of low compaction tyres 3. Provide a maintenance program for plant and machinery with SOPs including checks for actual and potential fuel/oil leaks, exhaust noise and emission issues. 4. Establish and use SOP for movement of machinery or movement between vineyards (ie daily and/or after each operation) with wash down procedures before transport. 5. Establish and use SOP for operational hours where neighbours may be affected. (eg use of good neighbour policy) 6. Record of weeds/pests on property 7. SOP for spills/leakage whilst in use.	Fuel usage (litres/ha) Gross return per litre of fuel ($/litre fuel) Level of soil compaction	System in place and being used Record of maintenance SOP Good neighbour policy Records SOP	
Transport of fuel	Potential for spills and leaks at the time of transport of fuel	Minimal spills and leaks with minimum contamination of land and water and minimal impact on local biodiversity.	1. Use Australian Standard as a guide for transport of fuel. 2. Use only licensed transportor. 3. Develop and use SOP for use mobile refuelling.		Copy of Australian Standard Copy of licence SOP	
Storage of fuel	Potential for leakage and spills from storage facilities	Minimise number and impacts from leakages and spills	1. Provide facilities following Australian Standards/EPA regarding distance from watercourse etc 2. Store fuels in appropriate impervious and bunded area (with/out shrouding) with bunding meeting requirements for height necessary to allow refuelling of harvesting machines. Segregate fuel areas to meet statutory requirements. (poly bunded trays may be a suitable alternative)		AS 1940	

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Servicing and cleaning vehicles	Potential for leakage and spills, and generation of waste	Minimise number and impacts from leakages and spills	1. Make appropriate provisions to separate chemical waste from wash down areas. 2. Select location of wash down bays to minimise impacts from run off/seepage 3. SOP for disposal of wash down water (recycle or disposal options and settled waste) 4. Servicing to be done on impervious floor with emergency spill kit		Facility Map SOP Facility	
Operation of various other equipment and machinery	The generation of noise and use of electricity	Minimise disturbance from machinery operation. Minimise use of electricity	1. SOP for matching machinery to task 2. Good Neighbour programme. 3. SOP for consideration of impacts to flora/fauna		SOP Programme SOP	