ENVIRONMENTAL RISK ASSESSMENT FOR OUT-OF-GROUND PRODUCTION

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Environmental Risk Assessment for Out-of-Ground Production

Environmental Risk Assessment for Out-of-Ground production is a tool used to evaluate practices in order to determine the relative risk of a nursery operation to impact water quality. The risk assessment tool was developed to help non-traditional agricultural practices such as container nurseries assess the environmental impacts of irrigation and nutrient runoff.

The Risk Assessment has 2 parts. Part I evaluates storm water & runoff management. The risk of runoff in an operation is determined by evaluating water management practices, vegetative cover & management, or methods to capture the used water. Growing areas with containment basins are evaluated separately from those without containment basins. Vegetative cover, growing surface, and containment of water are also used to determine the risk factor by field or management unit.

Part I: Storm water and Runoff Management

	Zero Risk	Low Risk	Medium Risk	High Risk
	Risk Factor = 0	**Risk Factor = 1**	**Risk Factor = 2**	**Risk Factor = 4**
A. Growing Areas that Drain to Containment Basins	Growing area is covered: precipitation does not contact substrate, AND growing area is on impervious surfaces, AND there is total capture and recycling of water. (1)	Containment basins sized to hold 90% or more of runoff from maximum daily irrigation; AND some recycling of water from basins OR some provision (diking, containment, wetlands, etc.) for overflow of basins.	Containment basins sized to hold 90% or more of runoff from maximum daily irrigation; AND there is no recycling of water from basins; AND there is no provision for the overflow of containment basins.	Containment basins sized to hold less than 90% of runoff from maximum daily irrigation

Growing Areas		Risk Factor
ID No.	**Acres or Square Feet**	**0, 1, 2, or 4**
_____	_____	_____
_____	_____	_____
_____	_____	_____

	Risk Factor = 0	Risk Factor = 1	Risk Factor = 2	Risk Factor = 4
B. Growing Areas that do not Drain to Containment Basin(s)	Growing area covered; precipitation does not contact substrate; AND growing area is on impervious surfaces; AND there is total capture and recycling of water (1)	Drainage is spread out to sheet flow AND flows through at least 50 feet of vegetation	Drainage is spread out to sheet flow but flows through less than 50 feet of vegetation	Drainage remains channelized to surface water; OR drainage flows through no vegetation

Growing Areas		Risk Factor
ID No.	**Acres or Square Feet**	**0, 1, 2, or 4**
_____	_____	_____
_____	_____	_____
_____	_____	_____

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If the risk factor for Part I is medium or high, Part II must also be used for the growing area. Part II takes into account the water application (irrigation) methods for that growing area. Part II has low, medium, or high risk determinations depending on the type of irrigation used & size and spacing of the containers.

When a growing area has a high risk determination, management practices should be changed in order to decrease the amount of runoff and improve nutrient management**.**

Part II: Water Application (Irrigation) Methods (2) and (3)

Complete this section only for growing areas with Risk Factors of 2 (medium) or 4 (high) in Part I

Low Risk	Medium Risk	High Risk
Microirrigation or subirrigation with less than total capture and recycling of water regardless of contain size OR Overhead irrigation applied to jammed or pot-to-pot containers smaller than 1 gallon (<2492cc container volume)	Overhead irrigation applied to jammed (pot-to-pot) containers 1 to 5 gallons (2492 to 20360 cc container volume) OR Overhead irrigation applied to spaced containers small than 5 gallons (<12860 cc container volume	Overhead irrigation applied to spaced 5 gallon containers 12860-20360 cc container volume OR Overhead irrigation applied to container larger than 5 gallons (>20360 cc container volume) regardless of spacing.

Growing Areas	
ID No.	**Acres or Square Feet**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Risk Assessment
(Low, Medium, or High)
_____
_____
_____
_____
_____
_____

Notes:

1. Recycled includes application to agricultural crop(s) other than those which produced the runoff.
2. Water application refers to irrigation intended to reach plant roots. It does not include the use of water to change environmental conditions around the plant canopy, such as frost protection and cooling.
3. Container sizes refer to container size categories established by American National Standards of Industry ANSI Z60.1-1996.