Mitigation Menu

Runoff/Erosion Mitigation Options

You may use the measures in Tables 1 and 2 unless you see more restrictive limitations on individual labels or bulletins. If you use these tables, you may select any combination of measures in the tables to achieve the minimum points required by the label or bulletin.

Table 1. Mitigation relief options.			
Mitigation Relief	Pesticide Runoff Vulnerability and Field Characteristics	Points	
County-based mitigation	Pesticide runoff vulnerability - very low	6	
relief [see <u>runoff</u>	Pesticide runoff vulnerability – low	3	
vulnerability map by	Pesticide runoff vulnerability - medium	2	
(pdf)]	Pesticide runoff vulnerability – high	0	
Select one option			
Field slope	Field slope ≤3% (naturally low slope or flat fields; flat laser leveled fields)	2	
Predominantly sandy soils			
This option can only be used if the product label does not prohibit application on sandy soils	Fields with 10-20% clay and 50-90% sand (includes loam, silt loam, or silt soil) without a restrictive layer that impedes the movement of water through the soil (also described as Hydrologic Soil Group B)	2	
	Fields with ≤10% clay and ≥90% sand (includes sand, loamy sand, or sandy loam soil) without a restrictive layer that impedes the movement of water through the soil (also described as Hydrologic Soil Group A)	3	
Mitigation tracking	Documented at the field or farm level, using paper or electronic format	1	
Working with and following recommendations from a technical specialist OR Participating in a conservation program (non-qualified) Select one; points are not additive for doing	 The technical specialist must meet the following characteristics: Have technical training, education and/or experience in an agricultural discipline, water or soil conservation, or other relevant disciplines that provides training and practice in the area of runoff or erosion mitigation technologies/measures; and Participate in continued education or training in the area of expertise which should include runoff and erosion control; and Have experience advising on conservation measures 	1	
both	designed to develop site specific runoff and erosion		

Table 1. Witigation Teller		Ditit
Mitigation Relief	Pesticide Runoff Vulnerability and Field Characteristics	Points
	plans that include mitigation measures described in Table 2 below.	
	The conservation program must meet the following characteristics:	
	 Provides advice from individuals who meet the same characteristics provided above for technical specialists; and 	
	 Provides site-specific guidance tailored to the grower/applicator's crop and/or location; and 	
	 Focuses on reducing or managing runoff and/or erosion (including for example, soil loss, soil conservation, water quality protection) from agricultural fields or other pesticide use sites; and 	-
	 Provides documentation of program enrollment for the program enrollee. This documentation does not need to be provided to EPA; and Includes verification of implementation of the 	2
	recommended measures or activities (measures were established and maintained). Verification can be done through the conservation program and provided to the program enrollee. Verification	
	is not required to be submitted to EPA. Conservation programs will be 2 points until they have been designated by EPA as an EPA-Qualified Conservation Program.	
	The conservation program must meet the characteristics described above and meet the maximum of 9 points.	
	Additionally:	
Participating in an EPA-	 Operations that consist of multiple distinct "farms" that consist of multiple fields with similar runoff/erosion concerns, need to have a program implemented on each farm, and 	
Qualified Conservation Program	 Programs would achieve a minimum of 9 points at the time of application, which would include 2 points for being part of a conservation program, and 	9
	 A program would maintain the above elements once it has been "qualified." 	
	The rationale and additional characteristics that are necessary to support designation as an EPA-Qualified Conservation Program are described in more detail in the <u>Final Insecticide</u> Strategy and <u>Ecological Mitigation Support Document to</u>	

Table 1. Mitigation relief options.

Mitigation Relief	Pesticide Runoff Vulnerability and Field Characteristics	Points
	Support Endangered Species Strategies (version 2.0)	
	<u>(pdf)</u> (5.07 MB) .	
EPA's first designated "EPA-Qualified Conservation		
	Program"	
	USDA-Natural Resources Conservation Service's (NRCS) Environmental Quality Incentives Program (EQIP), when incorporating NRCS Conservation Program Standard (CPS) 595 Pest Management Conservation System with the "Additional Criteria" for water quality in the development of the conservation plan, and implements the recommended practices identified in the conservation plan before or at the time of pesticide application	9

Table 2. Runoff/erosion mitigation options

Mitigation	Qualifying Practices	Points		
Application parameters				
Annual application rate reduction	Any application 10% to <30% less than the maximum labeled annual application rate	1		
	Any application 30% to <60% less than the maximum labeled annual application rate	2		
	Any application ≥60% less than the maximum labeled annual application rate	3		
Anionic Polyacrylamide (PAM)	Application of water-soluble formulations of anionic PAM	2		
Reduction in the proportion of field	Portion of field not treated: 10 to <30%	2		
treated (banded application, partial field	Portion of field not treated: 30 to <60%	3		
sprayer, or other specialized method)	Portion of field not treated: ≥60%	4		
Soil incorporation	 Watering-in or mechanical incorporation before a runoff producing event. A runoff producing event is considered as follows: A 50% or greater chance of rainfall of 1 inch or more is expected to occur within 48 hours of the application as predicted by the NOAA/National Weather Service. AND, The precipitation potential is 50% or greater at any point during the 48-hr period. 	1		
In-field mitigation measures				

Table 2. Runoff/erosion mitigation options		1
Mitigation	Qualifying Practices	Points
Conservation tillage	No-till, including perennial crops (e.g., orchards that are not tilled)	3
Select one option	Reduced tillage, strip tillage, ridge tillage, mulch tillage	2
Reservoir tillage	Reservoir tillage, furrow diking, basin tillage	3
Contour farming	Contour farming, contour tillage, contour orchard and perennial crops	2
<u>Vegetative Strips - In-Field</u>	Inter-row vegetated strips, strip cropping or intercropping, alley cropping, prairie strips, contour buffer strips, contour strip cropping, vegetative barrier (occurring in a contoured field)	2
Terrace farming	Terrace farming, terracing, field terracing	2
Course and a stimulation of a start	Cover crop or continuous ground cover; with tillage	1
Select one option	Cover crop or continuous ground cover; no tillage; short-term cover crop	2
	Cover crop or continuous ground cover; no tillage; long-term cover crop	3
Irrigation water management Select one option	Use of soil moisture sensors/evapotranspiration meters with center pivots & sprinklers; above ground drip tape, drip emitters; micro-sprinklers General irrigation management Use of below tarp irrigation, below ground	2
	drip tape; dry farming, non-irrigated lands No irrigation	3
Mulching	Mulching with permeable artificial materials (i.e., landscape fabrics, synthetic mulches)	1
Select one option	Mulching with natural materials	3
Erosion barriers	Wattles, silt fences	2
Field-adjacent	mitigation measures	
<u>Grassed waterway</u>	Grassed waterway	2
Vegetative filter strips (VFS) or field border	20 to 30 ft wide	1
adjacent to field	30 to <60 ft wide	2
Select one option	≥60 ft wide	3
Vegetated ditch	Vegetated ditch	1
Riparian area; riparian forest buffer; riparian	20 to <30 ft	1
herbaceous cover	30 to <60 ft	2
Select one option	≥60 ft	3

Table 2. Runoff/erosion mitigation options			
Mitigation	Qualifying Practices	Points	
Constructed and natural wetlands	Constructed and natural wetlands, wetland and riparian landscape/habitat improvement	3	
Terrestrial habitat landscape	20 to <30 ft	1	
improvement (i.e., critical area planting, cross	30 to <60 ft	2	
wind trap strips, hedgerow planting, herbaceous wind barriers, windbreak- shelterbelt establishment and renovation, tree shrub planting, forest stand improvement, upland wildlife habitat management)	≥60 ft	3	
Select one option			
Filtering devices	Filters, sleeves, socks, or filtration units containing activated carbon	3	
Select one option	Filters, sleeves, socks, or filtration units containing compost amendments	1	
Systems that captu	ire runoff and discharge		
Water retention systems	Sediment basins, catch basins, sediment traps, water retention ponds	2	
Subsurface drainages and tile drainage installed without controlled drainage structure	Subsurface tile drains, tile drains <u>without</u> <u>controlled drainage structure</u>	1	
<u>Using mitigation measures from multiple</u> <u>categories</u>	Practices must be used from at least 2 of the following categories: in-field, field- adjacent, or systems that capture runoff and discharge Examples: 1 in-field measure + 1 field-adjacent measure OR 1 in-field measure + 1 system that captures runoff and discharge OR 1 field-adjacent measure + 1 system that captures runoff and discharge	1	