APPENDIX 3
Pest Management (595)
Practice Summary Guide for Pesticide Losses

Practice	Pesticide Loss Pathways[1/]			Comments
	Leaching	Adsorption	Runoff	
Management Activities [2/]				
Lower Application Rate	+++	++	++	Most effective with highly soluble pesticides
Partial Substitution	+++	++	++	Use pesticide premixes or tank mixes containing lower quantities of the high risk pesticide, or combine with non-chemical control measures.
Select alternative with lower hazard rating	++	++	++	Good choice when an economical alternative exists for pesticide with extra high hazard rating.
Partial Treatment	++	+++	+++	Banding, directed spraying, or spot treatment most effective with strongly adsorbed pesticides
Formulation	+++	+	+	Less soluble formulation moves slower
Follow special label restrictions	+++	++	++	Follow special label restrictions where pesticides will be applied to soils which are subject to erosion, runoff, or leaching and where setbacks are required
Soil Incorporation	++	++	++	Reduces amount of pesticides at the soil surface, reduces macropore flow
Application Timing	+++	+++	+++	Pesticide losses decrease with time between application and storm events. Works best with herbicides that have wide application windows.
Conservation Practices [3/]				
Conservation Cover (327)	+++	+++	+++	For use when land is retired from production
Conservation Crop Rotation (328)	++	+++	+++	Pesticide use can be reduced due to rotational effects on pest complex
Contour Buffer Strips (332)	+	+++	++	Reduces runoff. Sediment deposited above buffer.
Contour Farming (330)		+	+	Infiltration improved, runoff reduced
Cover Crop (340)	++	++	+	Reduces transport of adsorbed pesticides, increases soil organic matter
Deep Tillage (324)	-	+	+	Shattering of restrictive layers reduces runoff and sedimentation
Field Border (386)		+++	++	Buffer action reduces runoff and suspended sediment
Filter Strip (393)	+	+++	++	Reduces runoff, sediment deposited above filter strip
Grassed Waterway (412)	+	++	+	Some trapping of adsorbed pesticides
Irrigation Land Leveling (464)	+	++		Reduction of suspended sediment and transport of adsorbed pesticides
Irrigation System Tail Water Recovery (447)	-	++	++	Reductions in runoff and suspended sediment
Irrigation Water Management (449)	++	+	++	Reduces leaching, runoff, and suspended sediment
Pasture and Hay Planting (512)	++	+++	+++	Rotation including perennial grasses and legumes generally require fewer pesticides
Prescribed Grazing (528A)	++	+++	++	Proper management of grazing and browsing animals improves plant health reducing the need for pesticides, improves soil health
Residue Management, No-Till (329A)		++	++	Significant reduction in adsorbed and highly soluble pesticide leaving a field

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Practice	Pesticide Loss Pathways [1/]			Comments
	Leaching	Adsorption	Runoff	
Management Practices [1/]				
Residue Management, Seasonal (344)		++	+	Slight to moderate reductions in adsorbed and highly soluble pesticides leaving a field
Residue Management, Mulch-Till (329B)		+++	++	Significant reduction in adsorbed and highly soluble pesticide leaving a field
Residue Management, Ridge Till (329C)		+++	++	Significant reduction in adsorbed and highly soluble pesticide leaving a field
Riparian Forest Buffer (391)	+	+++	+++	Slight to significant reduction in pesticide contamination of shallow ground water and surface water
Terrace (600)	-	+++	++	Moderate to significant reductions of runoff and suspended sediment carrying soluble or adsorbed pesticides
Tree and Shrub Establishment (612)	++	+++	+++	Moderate to significant reductions in pesticide usage
Waste Utilization or Mulching	++	++	++	Increased microbial degradation of pesticide residues, increases soil organic matter
Well Decommissioning (351)	+++			Closure of entry points of pesticides into ground water

[1/] Pluses signify positive effect of the treatment on the concern, minuses signify negative effect of the treatment on the concern, and blanks signify no effect of the treatment on the concern. The more pluses or minuses the greater the treatment effect on the concern.

[2/] Additional information on management practices can be obtained from the Field Office Technical Guide, NRCS personnel, Texas Cooperative Extension Service and pesticide labels.

[3/] Details regarding the effects of conservation practices on surface and ground water contamination by pesticides are contained in the Conservation Practice Physical Effects found in the Field Office Technical Guide.