

The Cost of Slug Damage



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“For seed growers, it seems like dealing with slugs is “money out the window.” Based on participants at the summit, we estimate grower costs of \$35-40 per acre to combat slugs...

... In one north valley field, there have been 5 treatments and 2 plantings just this year. Growers find yields are 70-95% less due to slugs; ”

-Slug Summit Conference Report
Salem, Oregon, 25 March 2015



Financial Impact

Summary of Slug Damage Cost for Establishment Year

	Lost crop:	\$	40,306,571	
	Re-planting:	\$	2,395,200	
	Treatments:	\$	7,603,810	
	TOTAL:	\$	50,305,581	

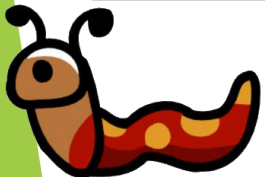
Cost of Slug Control for Establishing Crop					
			Slug Treatments	Appl. Cost	Slug Control
	Crop	Baby Acres	No. of Appl.	(\$/acre)	(\$/acre)
	Per. Ryegrass	36667	1.5	\$ 40.00	\$ 1,466,667
	Ann. Ryegrass	125000	1.5	\$ 40.00	\$ 5,000,000
	Tall Fescue	21714	1.5	\$ 40.00	\$ 868,571
	Fine Fescue	5000	1.5	\$ 40.00	\$ 200,000
	Orchardgrass	1714	1.5	\$ 40.00	\$ 68,571
					\$ 7,603,810



Financial Impact

Cost/Value of lost crop:						
	Crop	Baby Acres	Avg. Yield/acre	Value \$/lb	Damage cost (\$/acre)	Total Cost of Damage (\$)
	Per. Ryegrass	36667	1600	\$ 0.70	\$ 336.00	\$ 12,320,000
	Ann. Ryegrass	125000	2000	\$ 0.24	\$ 144.00	\$ 18,000,000
	Tall Fescue	21714	1600	\$ 0.65	\$ 312.00	\$ 6,774,857
	Fine Fescue	5000	1500	\$ 1.00	\$ 450.00	\$ 2,250,000
	Orchardgrass	1714	1100	\$ 1.70	\$ 561.00	\$ 961,714
						\$ 40,306,571

Cost to Re-plant lost acres:				
			Planting cost	
	Crop	Re-plant Acres	(\$/acre)	Cost
	Per. Ryegrass	11000	\$ 42.00	\$ 462,000
	Ann. Ryegrass	37500	\$ 42.00	\$ 1,575,000
	Tall Fescue	6514	\$ 42.00	\$ 273,600
	Fine Fescue	1500	\$ 42.00	\$ 63,000
	Orchardgrass	514	\$ 42.00	\$ 21,600
				\$ 2,395,200



Financial Impact- Established Crop

The cost of slugs to grass seed industry in established crops

Established Crop

Damage range (%loss): 0-80%

Damage avg (%loss): 15% This loss is the lasting damage after treatment.

Summary of Slug Damage Cost for Established Crop

Lost crop: \$ 38,904,714

Treatments: \$ 7,418,190

TOTAL: \$ 46,322,905

Acreage Breakdown

Crop	Total Acres	Baby Acres	Established Acres
Per. Ryegrass	110000	36667	73333
Ann. Ryegrass	125000	125000	0
Tall Fescue	152000	21714	130286
Fine Fescue	20000	5000	15000
Orchardgrass	12000	1714	10286

Financial Impact- Established Crop

Cost/Value of lost crop:						
	Crop	Est. Acres	Avg. Yield/acre	Value \$/lb	Damage cost (\$/acre)	Total Cost of Damage (\$)
	Per. Ryegrass	73333	1600	\$ 0.70	\$ 168.00	\$ 12,320,000
	Ann. Ryegrass	0	2000	\$ 0.24	\$ 72.00	\$ -
	Tall Fescue	130286	1600	\$ 0.65	\$ 156.00	\$ 20,324,571
	Fine Fescue	15000	1500	\$ 1.00	\$ 225.00	\$ 3,375,000
	Orchardgrass	10286	1100	\$ 1.70	\$ 280.50	\$ 2,885,143
						\$ 38,904,714
Cost of Slug Control for Established Crop						
	Crop	Est. Acres	Trtmnt on 100% No. of Appl.	Trtmnt on 15% No. of Appl.	Appl. Cost (\$/acre)	Slug Control (\$/acre)
	Per. Ryegrass	73333	1	1	\$ 40.00	\$ 3,373,333
	Ann. Ryegrass	0	0	0	\$ 40.00	\$ -
	Tall Fescue	130286	0.5	1	\$ 40.00	\$ 3,387,429
	Fine Fescue	15000	0.5	1	\$ 40.00	\$ 390,000
	Orchardgrass	10286	0.5	1	\$ 40.00	\$ 267,429
						\$ 7,418,190

Financial Impact Clover Seed

The cost of slugs to clover seed industry

Summary of Slug Damage Cost for Clover Seed Industry

Lost crop: \$6,769,700

Re-planting: \$ 252,000

Treatments: \$ 3,480,000

TOTAL: \$10,501,700

Baby Acres

Damage range (%loss): 0-100%

Damage avg (%loss): 25%

Established Acres

Damage range (%loss): 0-50%

Damage avg (%loss): 10%

Acreage Breakdown

Crop	Total Acres	Baby Acres	Established Acres
Red Clover	20000	10000	10000
White Clover	12000	4000	8000
Crimson Clover	10000	10000	-

Financial Impact Clover Seed

Baby Acres

Damage range (%loss): 0-100%
Damage avg (%loss): 25%

Established Acres

Damage range (%loss): 0-50%
Damage avg (%loss): 10%

Acreage Breakdown

Crop	Total Acres	Baby Acres	Established Acres
Red Clover	20000	10000	10000
White Clover	12000	4000	8000
Crimson Clover	10000	10000	-

Cost/Value of lost crop:

Crop	Baby Acres	Est. Acres	Avg. Yield/acre	Value \$/lb	Total Cost of Damage (\$)
Red Clover	10000	10000	600	\$ 1.23	\$ 2,583,000
White Clover	4000	8000	700	\$ 2.17	\$ 2,734,200
Crimson Clover	10000	-	700	\$.83	\$ 1,452,500
					\$ 6,769,700

Financial Impact Clover Seed

Cost to Re-plant lost acres:

Planting cost

Re-plant					
Crop	Acres		(\$/acre)		Cost
Red Clover	2500	\$	42.00	\$	105,000
White Clover	1000	\$	42.00	\$	42,000
Crimson Clover	2500	\$	42.00	\$	105,000
				\$	252,000

Cost of Slug Control

Baby Acres

Est. Acres
Slug

Crop	Baby Acres	Slug Treatments	Est. Acres	Treatments	Appl. Cost	Slug Control
		No. of Appl.		No. of Appl.	(\$/acre)	(\$/acre)
Red Clover	10000	2.5	10000	1.5	\$ 40.00	\$ 1,600,000
White Clover	4000	2.5	8000	1.5	\$ 40.00	\$ 880,000
Crimson Clover	10000	2.5	-	-	\$ 40.00	\$ 1,000,000
						\$ 3,480,000

The Cost Of Slug Damage



Slug Damage

Sam Sweeney has been farming in the Willamette Valley since the 1960s. Photo by Leah Sottile



Slug Damage



“Growers are at a loss on how to combat slugs effectively”



Slug Damage

Stand Loss due to Slug Damage



Overhead View of Slug Damage

Photo By Leah Sottile



Slugs Are Destroying the Businesses of Oregon's Sustainable Farmers, Leah Sottile

