

Appendix D: Nitrogen, Phosphorus, and Sediment Watershed Model Efficiency Rates for Cover Crops

Cover Crop Type	Time Seeded	Technique Used	Average Nitrogen Efficiency	Average Phosphorus Efficiency	Average Sediment Efficiency
Traditional Barley	Early	Aerial	19.18	6	8
		Drilled	34.73	6	8
		Other	29.45	6	8
	Normal	Drilled	26.45	2.8	4
		Other	22.18	2.8	4
Barley with Fall Nutrients	Early	Drilled	24.45	6	8
		Other	20.55	6	8
	Normal	Drilled	18.18	2.8	4
		Other	15.55	2.8	4
Traditional Brassica	Early	Aerial	16.36	4	5.2
		Drilled	29.09	4	5.2
		Other	24.45	4	5.2
Brassica with Fall Nutrients	Early	Drilled	20.18	4	5.2
		Other	17.18	4	5.2
Cover Crop Commodity		Early	4.5	0	0
		Late	13.8	0	0
		Normal	9.3	0	0
Annual Legume	Early	Aerial	3.64	2.4	3.2
		Drilled	6.27	2.4	3.2
		Other	5.64	2.4	3.2
	Normal	Drilled	5.64	1.2	1.6
		Other	5.27	1.2	1.6
Traditional Legume Plus Grass	Early	Aerial	11.41	4	6
		Drilled	21	4	6
		Other	17.86	4	6
	Normal	Drilled	20	2	2.8
		Other	16.86	2	2.8
Traditional Oats, Winter Hardy	Early	Drilled	15	3.6	5.6
		Other	13	3.6	5.6
	Normal	Drilled	14	1.6	2.8
		Other	12	1.6	2.8

Cover Crop Type	Time Seeded	Technique Used	Average Nitrogen Efficiency	Average Phosphorus Efficiency	Average Sediment Efficiency
Traditional Oats Winter Hardy, with Fall Nutrients	Early	Aerial	12.73	3.6	5.6
		Drilled	19.6	3.6	5.6
		Other	16.7	3.6	5.6
Traditional Oats Winter Hardy, with Fall Nutrients	Normal	Drilled	18.05	1.6	2.8
		Other	15.35	1.6	2.8
Traditional Oats Winter Killed, with Fall Nutrients	Early	Aerial	9.27	2.4	3.2
		Drilled	16.55	2.4	3.2
		Other	13.91	2.4	3.2
Traditional Forage Radish	Early	Aerial	12.91	2.4	3.6
		Drilled	23.82	2.4	3.6
		Other	20.18	2.4	3.6
Forage Radish Plus	Early	Drilled	17.5	3.2	4.8
		Other	15	3.2	4.8
	Normal	Drilled	13.5	1.6	2.4
		Other	11.5	1.6	2.4
Radish Plus with Fall Nutrients	Early	Aerial	14.55	3.2	4.8
		Drilled	22.8	3.2	4.8
		Other	19.6	3.2	4.8
	Normal	Drilled	17.2	1.6	2.4
		Other	14.5	1.6	2.4
Traditional Rye	Early	Aerial	22.82	6	8
		Drilled	41	6	8
		Other	34.73	6	8
	Late	Drilled	17.55	0	0
		Other	14.55	0	0
	Normal	Drilled	37.36	2.8	4
		Other	32.09	2.8	4
Rye with Fall Nutrients	Early	Drilled	29.09	6	8
		Other	24.45	6	8
	Late	Drilled	12.27	0	0
		Other	9.91	0	0
	Normal	Drilled	26.45	2.8	4
		Other	22.82	2.8	4

Cover Crop Type	Time Seeded	Technique Used	Average Nitrogen Efficiency	Average Phosphorus Efficiency	Average Sediment Efficiency
Annual Ryegrass	Early	Aerial	14.73	4	6
		Drilled	23.6	4	6
		Other	19.9	4	6
Annual Ryegrass	Normal	Drilled	21.25	2	2.8
		Other	18.25	2	2.8
Ryegrass with Fall Nutrients	Early	Drilled	18.5	4	6
		Other	16.33	4.00	6
	Normal	Drilled	16.5	2	2.8
		Other	14	2	2.8
Traditional Triticale	Early	Aerial	19.36	6	8
		Drilled	35.36	6	8
		Other	30.09	6	8
	Late	Drilled	14.91	0	0
		Other	12.55	0	0
	Normal	Drilled	32.09	2.8	4
Other		27.45	2.8	4	
Triticale with Fall Nutrients	Early	Drilled	24.45	5.56	6.8
		Other	20.82	5.56	6.8
	Late	Drilled	10.27	0	0
		Other	8.91	0	0
	Normal	Drilled	22.82	2.65	3.2
Other		19.18	2.65	3.2	
Traditional Wheat	Early	Aerial	15.73	6	8
		Drilled	28.47	6.11	8.15
		Other	24.47	6.11	8.15
	Late	Drilled	11.92	0	0
		Other	10.28	0	0
	Normal	Drilled	26.47	2.85	4.07
Other		22.19	2.85	4.07	
Wheat with Fall Nutrients	Early	Drilled	20.18	6	8
		Other	17.18	6	8
	Late	Drilled	8.27	0	0
		Other	7.27	0	0
	Normal	Drilled	18.18	2.8	4
Other		15.53	2.83	4.04	