

Pacific Northwest Biosolids Research Results: Nitrogen Mineralization

Author	Report	Biosolids Type	Biosolids Appl. Rate	Location	Season of Application	Mineralization rate over period in months.											
						2	3	4	5	6	7	8	9	12	21	24	
Grey, M. and Henry, C.	Boulder Park Dryland Wheat Biosolids Nitrogen Dynamics 1994 Research Summary	Anaerobic digested from Renton WWTP.	5 dry tons/ac	Boulder Park, near Mansfield, in E. WA	Fall (Sept 1994)		11%					16%					
			5 dry tons/ac	"	"	Spring (May 1995)		35%									
Grey, M. and Henry, C.	Prosser Poplar Plantation Biosolids Nitrogen Dynamics 1994 Reaearch Summary	Anaerobic digested from Renton WWTP. dewatered.	5 dry tons/ac	WSU's Irrigated Agriculture Research Station at Prosser in E. WA	Summer (August 1994)				Drip 25% Micro 26%								Drip 28% Micro 27%
			5 dry tons/ac	"	"	Spring (April 1995)	Drip 33% Micro 34%										
Grey, M. and Henry, C.	Emerald Farms Biosolids Nitrogen Dynamics 1993-94 Research Summary	Anaerobic digested from Renton WWTP. - dewatered	5 dry tons/ac	Emerald Farms at Sunnyside in E. WA	Spring (May 1994)	39%					55%						48%
			"	"	"	Fall (Sept 1994)	33%										
			5-20 g per chamber	Emerald Farms at Sunnyside in E. WA	Spring (May 1994)	25%					42%						

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Grey, M. and Henry, C.	Heat Dried Biosolids Organic Nitrogen Mineralization 1993-94 Research Summary	Anaerobic digested from Renton WWTP. Heat Dried	4 g /chamber	Pack Forest, W. WA	Fall (Oct 1993)	22%				31%				39%		
		"	"	WSU Puyallup, E. WA	Fall (Oct 1993)	29%				34%				42%		
		"	"	Emerald Farms at Sunnyside in E. WA	Fall (Oct 1993)	5%				23%				30%		

Henry, C.L	Nitrogen Dynamics of pulp and paper sludge amendment to forest soils	Primary P&P Sludge (25% solids)	67 Mg/ha	UW Pack Forest near Eatonville in W. WA					Sand -28.2% Clay -16.2%				Sand -17.9% Clay -24.5%	Sand -12.0% Clay -20.9%	Sand -12.3% Clay -31.5%	
		1:2 sec/prim sludge mixture	22Mg/ha (2°) & 45 Mg/ha (1°)	"					Sand 49.2% Clay 48.6%				Sand 67.8% Clay 63.6%	Sand 69% Clay 70.7%	Sand 71.5% Clay 74.3%	
		2:1 sec/prim sludge mixture	45Mg/ha (2°) & 22 Mg/ha (1°)	"					Sand 43.8% Clay soil 48.3%				Sand 56.5% Clay 58.8%	Sand 63.6% Clay 68.0%	Sand 72.9% Clay 73.8%	
		Scndary P&P Sludge (8% Solids)	45 Mg/ha	"					Sand 47.4% Clay 43.2%				Sand 65.0% Clay 70.4%	Sand 67.6% Clay 73.9%	Sand 75.0% Clay 79.2%	

