

Agricultural Waste Management

Emmet County, Iowa

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
6: Okoboji-----	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70	Restricted permeability	0.22	Restricted permeability	0.22
		Restricted permeability	0.30				
27: Terril-----	100	Not limited		Not limited		Not limited	
27B: Terril-----	95	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08
27C: Terril-----	100	Not limited		Not limited		Somewhat limited Too steep for surface application Too steep for sprinkler application	0.66 0.01
28: Dickman-----	100	Very limited Filtering capacity Leaching limitation	1.00 0.45	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
28B: Dickman-----	100	Very limited Filtering capacity Leaching limitation	1.00 0.45	Very limited Filtering capacity	1.00	Very limited Filtering capacity Too steep for surface application	1.00 0.08
34: Estherville-----	100	Very limited Filtering capacity Droughty	1.00 0.67	Very limited Filtering capacity Droughty	1.00 0.67	Very limited Filtering capacity Droughty	1.00 0.67

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34C2: Estherville-----	100	Very limited Filtering capacity Droughty	1.00 0.67	Very limited Filtering capacity Droughty	1.00 0.67	Very limited Filtering capacity Too steep for surface application Droughty Too steep for sprinkler application	1.00 0.91 0.67 0.02
55: Nicollet-----	95	Somewhat limited Depth to saturated zone	0.02	Somewhat limited Depth to saturated zone	0.02	Somewhat limited Depth to saturated zone	0.02
62C2: Storden-----	90	Not limited		Not limited		Somewhat limited Too steep for surface application Too steep for sprinkler application	0.91 0.02
62D2: Storden-----	90	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.77
62D3: Storden-----	90	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.77
62E: Storden-----	100	Very limited		Very limited		Very limited	

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
						Too steep for sprinkler application	1.00
62E2: Storden-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
						Too steep for sprinkler application	1.00
62F: Storden-----	90	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
						Too steep for sprinkler application	1.00
62G: Storden-----	90	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
						Too steep for sprinkler application	1.00
72: Estherville-----	95	Very limited Filtering capacity Droughty	1.00 0.25	Very limited Filtering capacity Droughty	1.00 0.25	Very limited Filtering capacity Droughty	1.00 0.25
72B: Estherville-----	95	Very limited Filtering capacity Droughty	1.00 0.25	Very limited Filtering capacity Droughty	1.00 0.25	Very limited Filtering capacity Droughty	1.00 0.25

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
						Too steep for surface application	0.08
73B: Salida-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty Leaching limitation	1.00 0.45	Droughty	1.00	Droughty Too steep for surface application	1.00 0.08
73C2: Salida-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty Leaching limitation	1.00 0.45	Droughty	1.00	Droughty Too steep for surface application Too steep for sprinkler application	1.00 0.91 0.02
73D2: Salida-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty Slope Leaching limitation	1.00 0.63 0.45	Droughty Slope	1.00 0.63	Too steep for surface application Droughty Too steep for sprinkler application	1.00 1.00 0.77
73G: Salida-----	95	Very limited Slope	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
		Droughty	1.00	Droughty	1.00	Too steep for sprinkler application	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Leaching limitation	0.45			Droughty	1.00
90: Okoboji-----	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70	Restricted permeability	0.22	Restricted permeability	0.22
		Restricted permeability	0.30				
95: Harps-----	95	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70				
107: Webster-----	95	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70				
108: Wadena-----	95	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
133: Colo-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70	Flooding	1.00	Flooding	0.60
		Flooding	0.60				
135: Coland-----	95	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70	Flooding	1.00	Flooding	0.60
		Flooding	0.60				

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
138B: Clarion-----	85	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08
138C: Clarion-----	100	Not limited		Not limited		Somewhat limited Too steep for surface application Too steep for sprinkler application	0.91 0.02
138C2: Clarion-----	85	Not limited		Not limited		Somewhat limited Too steep for surface application Too steep for sprinkler application	0.91 0.02
138D: Clarion-----	95	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.77
138D2: Clarion-----	85	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.77
221: Palms-----	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Leaching limitation	0.90	Low adsorption	1.00		
224: Linder-----	95	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to saturated zone	0.43	Depth to saturated zone	0.43	Depth to saturated zone	0.43
236B: Lester-----	100	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08
236C: Lester-----	100	Not limited		Not limited		Somewhat limited Too steep for surface application Too steep for sprinkler application	0.91 0.02
236D: Lester-----	90	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.77
236F: Lester-----	95	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application Too steep for sprinkler application	1.00 1.00
236G: Lester-----	95	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
						Too steep for sprinkler application	1.00
259: Biscay-----	95	Very limited Depth to saturated zone Filtering capacity Leaching limitation	1.00 1.00 0.70	Very limited Depth to saturated zone Filtering capacity	1.00 1.00	Very limited Depth to saturated zone Filtering capacity	1.00 1.00
354: Histosols-----	100	Very limited Not Rated (miscellaneous unit) Depth to saturated zone Low adsorption	1.00 1.00 1.00	Very limited Not Rated (miscellaneous unit) Depth to saturated zone Low adsorption	1.00 1.00 1.00	Very limited Not Rated (miscellaneous unit) Depth to saturated zone Low adsorption	1.00 1.00 1.00
384: Collinwood-----	95	Somewhat limited Restricted permeability Depth to saturated zone	0.89 0.09	Somewhat limited Restricted permeability Depth to saturated zone	0.78 0.09	Somewhat limited Restricted permeability Depth to saturated zone	0.78 0.09
390: Waldorf-----	95	Very limited Depth to saturated zone Restricted permeability Leaching limitation	1.00 0.89 0.50	Very limited Depth to saturated zone Restricted permeability	1.00 0.78	Very limited Depth to saturated zone Restricted permeability	1.00 0.78
485: Spillville-----	95	Somewhat limited Flooding	0.60	Very limited Flooding	1.00	Somewhat limited Flooding	0.60
485B: Spillville-----	95	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
507: Canisteo-----	95	Very limited Depth to saturated zone Leaching limitation	1.00 0.70	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
508: Calcousta-----	100	Very limited Depth to saturated zone Leaching limitation	1.00 0.70	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
511: Blue Earth-----	100	Very limited Depth to saturated zone Leaching limitation	1.00 0.70	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
511B: Blue Earth-----	100	Very limited Depth to saturated zone Runoff limitation Restricted permeability	1.00 0.40 0.30	Very limited Depth to saturated zone Restricted permeability	1.00 0.22	Very limited Depth to saturated zone Restricted permeability Too steep for surface application	1.00 0.22 0.01
524: Linder-----	95	Very limited Filtering capacity Depth to saturated zone	1.00 0.43	Very limited Filtering capacity Depth to saturated zone	1.00 0.43	Very limited Filtering capacity Depth to saturated zone	1.00 0.43
559: Talcot-----	100	Very limited Depth to saturated zone Filtering capacity Leaching limitation	1.00 1.00 0.70	Very limited Depth to saturated zone Filtering capacity	1.00 1.00	Very limited Depth to saturated zone Filtering capacity	1.00 1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
585B: Coland-----	60	Very limited Depth to saturated zone Leaching limitation Flooding	1.00 0.70 0.60	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding Too steep for surface application	1.00 0.60 0.08
Spillville-----	40	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08
638B: Clarion-----	50	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08
Storden-----	45	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08
638C2: Clarion-----	50	Not limited		Not limited		Somewhat limited Too steep for surface application Too steep for sprinkler application	0.91 0.02
Storden-----	40	Not limited		Not limited		Somewhat limited Too steep for surface application Too steep for sprinkler application	0.91 0.02
638D2: Clarion-----	50	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Too steep for surface application	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
						Too steep for sprinkler application	0.77
Storden-----	40	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Too steep for surface application	1.00
						Too steep for sprinkler application	0.77
638E2: Clarion-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
						Too steep for sprinkler application	1.00
Storden-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
						Too steep for sprinkler application	1.00
639D2: Storden-----	60	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Too steep for surface application	1.00
						Too steep for sprinkler application	0.39
Salida-----	35	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	1.00	Droughty	1.00	Droughty	1.00
		Leaching limitation	0.45	Slope	0.16	Too steep for surface application	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Slope	0.16			Too steep for sprinkler application	0.39
655: Crippin-----	95	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Depth to saturated zone	0.43
707: Delft-----	90	Very limited Depth to saturated zone Leaching limitation Restricted permeability	1.00 0.70 0.30	Very limited Depth to saturated zone Restricted permeability	1.00 0.22	Very limited Depth to saturated zone Restricted permeability	1.00 0.22
733: Calco-----	95	Very limited Depth to saturated zone Leaching limitation Flooding	1.00 0.70 0.60	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
787B: Vinje-----	100	Somewhat limited Restricted permeability	0.30	Somewhat limited Restricted permeability	0.22	Somewhat limited Restricted permeability Too steep for surface application	0.22 0.08
811: Muskego-----	100	Very limited Restricted permeability Depth to saturated zone Leaching limitation	1.00 1.00 0.90	Very limited Depth to saturated zone Low adsorption Restricted permeability	1.00 1.00 1.00	Very limited Depth to saturated zone Restricted permeability	1.00 1.00
823: Ridgeport-----	95	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00

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828B: Zenor-----	90	Droughty	0.87	Droughty	0.87	Droughty	0.87
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.71	Droughty	0.71	Droughty Too steep for surface application	0.71 0.08
828C2: Zenor-----	85	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.71	Droughty	0.71	Too steep for surface application	0.91
						Droughty Too steep for sprinkler application	0.71 0.02
879: Fostoria-----	95	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Depth to saturated zone	0.43
956: Okoboji-----	60	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70	Restricted permeability	0.22	Restricted permeability	0.22
		Restricted permeability	0.30				
Harps-----	35	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70				
1133: Colo-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Leaching limitation	0.70	Flooding	1.00	Flooding	0.60
		Flooding	0.60				
1458: Millington-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Leaching limitation	0.70				
1585: Coland-----	60	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Leaching limitation	0.70				
Spillville-----	30	Somewhat limited Flooding	0.60	Very limited Flooding	1.00	Somewhat limited Flooding	0.60
1707B: Delft-----	60	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Leaching limitation	0.70	Restricted permeability	0.22	Restricted permeability	0.22
		Restricted permeability	0.30			Too steep for surface application	0.01
Terril-----	30	Not limited		Not limited		Somewhat limited Too steep for surface application	0.08
5010: Pits-----	100	Not rated		Not rated		Not rated	
5040: Orthents-----	100	Not rated		Not rated		Not rated	

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
5043: Orthents-----	100	Not rated		Not rated		Not rated	
W: Water-----	100	Not rated		Not rated		Not rated	