Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

[Absence of an entry indicates that data were not estimated]

Map symbol and soil name			Pct. of map unit				Slope	T Factor				Taxonomic Order		Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*	*< ---------- Pct ---------- >*						*< -- g/cm3 -- >*	
BoB:																								
Boyer			50%		3.0		4					Alfisols		0.23			strongly contrasting textural stratification at 51 to 152cm							
Ap	20	LS	79.0	17.0	4.0	10	4.0	9.0	33.0	28.0	5.0	2.00	5.8	---	28.23	9.0	---	0	1.5	19.4	14.7	6.0	1.55	1.63
E	23	LS	85.0	9.0	6.0	10	5.0	15.0	28.0	28.0	9.0	0.75	6.3	---	28.23	9.0	---	0	1.5	19.4	14.7	6.0	1.55	1.63
Bt1	13	SL	70.0	16.0	14.0	10	6.0	15.0	25.0	20.0	4.0	0.75	6.3	---	28.23	8.5	---	0	1.5	---	17.4	9.2	1.70	1.79
Bt2	13	SL	70.0	16.0	14.0	10	6.0	15.0	25.0	20.0	4.0	0.75	6.8	---	28.23	8.5	---	0	1.5	---	17.4	9.2	1.70	1.79
2C	83	SR- S GR-COS	90.0	7.0	3.0	29	15.0	24.0	32.0	15.0	4.0	0.75	7.9	---	141.14	3.0	---	30	1.5	8.6	6.1	2.0	1.70	1.83
Ormas			40%		3.0		5					Alfisols		0.30			strongly contrasting textural stratification at 114 to 191cm							
Ap	23	LS	81.0	15.0	4.0	---	1.0	6.0	30.0	36.0	8.0	1.25	6.5	---	91.74	7.5	---	0	1.5	19.8	14.2	4.9	1.55	1.62
E1,E2,E	76	S	88.0	8.0	4.0	---	2.0	6.0	31.0	42.0	7.0	0.75	6.1	---	91.74	5.0	---	0	1.5	14.3	10.4	3.7	1.60	1.67
Bt1	20	SL	73.0	10.0	17.0	6	4.0	8.0	27.0	27.0	7.0	0.75	5.8	---	28.23	11.0	---	0	1.5	---	21.0	12.3	1.70	1.78
Bt2	21	GR-SCL	70.0	8.0	22.0	16	6.0	11.0	23.0	24.0	6.0	0.75	6.7	---	28.23	10.0	---	8	1.5	---	21.3	14.1	1.70	1.79
BCt,2C	63	GR-COS	91.0	7.0	2.0	32	13.0	25.0	30.0	18.0	5.0	0.75	7.9	---	141.14	3.0	---	30	1.5	8.7	5.9	1.7	1.70	1.82
Riverdale			10%		---		---					---		albedo not populated			no restriction within 200 cm							
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit		Slope		T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*	*< ---------- Pct ---------- >*					*< -- g/cm3 -- >*	
BoC:																								
Boyer			50%		9.0		4		Alfisols				0.23			strongly contrasting textural stratification at 51 to 152cm								
Ap	20	LS	79.0	17.0	4.0	10	4.0	9.0	33.0	28.0	5.0	2.00	5.8	---	28.23	9.0	---	0	1.5	19.4	14.7	6.0	1.55	1.63
E	23	LS	85.0	9.0	6.0	10	5.0	15.0	28.0	28.0	9.0	0.75	6.3	---	28.23	9.0	---	0	1.5	19.4	14.7	6.0	1.55	1.63
Bt1	13	SL	70.0	16.0	14.0	10	6.0	15.0	25.0	20.0	4.0	0.75	6.3	---	28.23	8.5	---	0	1.5	---	17.4	9.2	1.70	1.79
Bt2	13	SL	70.0	16.0	14.0	10	6.0	15.0	25.0	20.0	4.0	0.75	6.8	---	28.23	8.5	---	0	1.5	---	17.4	9.2	1.70	1.79
2C	83	SR- S GR-COS	90.0	7.0	3.0	29	15.0	24.0	32.0	15.0	4.0	0.75	7.9	---	141.14	3.0	---	30	1.5	8.6	6.1	2.0	1.70	1.83
Ormas			40%		9.0		5		Alfisols				0.30			strongly contrasting textural stratification at 114 to 191cm								
Ap	23	LS	81.0	15.0	4.0	---	1.0	6.0	30.0	36.0	8.0	1.25	6.5	---	91.74	7.5	---	0	1.5	19.8	14.2	4.9	1.55	1.62
E1,E2,E	76	S	88.0	8.0	4.0	---	2.0	6.0	31.0	42.0	7.0	0.75	6.1	---	91.74	5.0	---	0	1.5	14.3	10.4	3.7	1.60	1.67
Bt1	20	SL	73.0	10.0	17.0	6	4.0	8.0	27.0	27.0	7.0	0.75	5.8	---	28.23	11.0	---	0	1.5	---	21.0	12.3	1.70	1.78
Bt2	21	GR-SCL	70.0	8.0	22.0	16	6.0	11.0	23.0	24.0	6.0	0.75	6.7	---	28.23	10.0	---	8	1.5	---	21.3	14.1	1.70	1.79
BCt,2C	63	GR-COS	91.0	7.0	2.0	32	13.0	25.0	30.0	18.0	5.0	0.75	7.9	---	141.14	3.0	---	30	1.5	8.7	5.9	1.7	1.70	1.82
Martinsville			5%		---		---		---				albedo not populated			no restriction within 200 cm								
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit		Slope		T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*	*< ---------- Pct ---------- >*					*< -- g/cm3 -- >*	
BoC:																								
Rawson			5%		---		---		---				albedo not populated				no restriction within 200 cm							
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bz:																								
Brookston			100%		1.0		5		Mollisols				0.09				no restriction within 200 cm							
Ap	25	L	36.0	41.0	23.0	6	1.0	3.0	9.0	15.0	8.0	5.00	6.7	---	9.17	22.0	---	0	1.5	---	31.5	19.0	1.45	1.52
A1,BE,Bt	87	CL	26.0	44.0	30.0	11	3.0	3.0	7.0	6.0	7.0	1.75	7.0	---	9.17	18.5	---	0	4.5	---	31.1	19.5	1.55	1.79
C	40	L	36.0	44.0	20.0	11	5.0	5.0	9.0	8.0	9.0	0.75	7.9	---	2.82	12.0	---	25	1.5	---	35.9	14.3	1.80	1.89
CaC:																								
Casco			100%		9.0		2		Alfisols				0.23				strongly contrasting textural stratification at 25 to 51cm							
Ap	18	GR-SL	66.0	16.0	18.0	26	9.0	14.0	17.0	18.0	8.0	2.00	6.5	---	23.29	11.0	---	0	1.5	---	15.1	8.1	1.55	1.65
Bt	23	GR-CL	34.0	37.0	29.0	27	3.0	8.0	12.0	9.0	2.0	0.75	6.7	---	9.17	15.0	---	0	4.5	---	25.5	15.3	1.60	1.89
2C	111	SR- S GR-COS	90.0	8.0	2.0	32	13.0	38.0	29.0	7.0	3.0	0.50	7.9	---	141.14	3.0	---	30	1.5	8.3	5.5	1.5	1.70	1.82
CaD2:																								
Casco			100%		15.0		2		Alfisols				0.23				strongly contrasting textural stratification at 25 to 51cm							
Ap	18	GR-SL	66.0	16.0	18.0	26	9.0	14.0	17.0	18.0	8.0	2.00	6.5	---	23.29	11.0	---	0	1.5	---	15.1	8.1	1.55	1.65
Bt	23	GR-CL	34.0	37.0	29.0	27	3.0	8.0	12.0	9.0	2.0	0.75	6.7	---	9.17	15.0	---	0	4.5	---	25.5	15.3	1.60	1.89
2C	111	SR- S GR-COS	90.0	8.0	2.0	32	13.0	38.0	29.0	7.0	3.0	0.50	7.9	---	141.14	3.0	---	39	1.5	8.3	5.5	1.5	1.70	1.82

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit		Slope		T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*		*< ---------- Pct ---------- >*				*< -- g/cm3 -- >*	
Co:																								
Cohoctah			100%		0.5		5		Mollisols				0.16					no restriction within 200 cm						
Ap	28	SL	53.0	30.0	17.0	---	1.0	2.0	10.0	26.0	14.0	4.00	7.0	---	28.23	17.0	---	0	1.5	---	22.2	13.2	1.45	1.52
Bg1-3,B	61	FSL	53.0	32.0	15.0	---	4.0	4.0	19.0	13.0	13.0	1.75	7.0	---	28.23	10.5	---	0	1.5	---	21.5	12.2	1.60	1.67
Cg1,Cg2	63	FSL	61.0	29.0	10.0	2	4.0	4.0	17.0	26.0	10.0	1.25	7.3	---	28.23	8.0	---	0	1.5	---	17.8	8.2	1.60	1.67
CrA:																								
Crosier			90%		2.0		3		Alfisols				0.30					densic material at 51 to 102cm						
Ap	20	L	43.0	42.0	15.0	8	1.0	5.0	12.0	16.0	9.0	2.00	6.5	---	9.17	12.5	---	0	1.5	---	24.7	9.8	1.45	1.52
Bt1,Bt2,	61	CL	37.0	34.0	29.0	8	2.0	4.0	9.0	14.0	8.0	0.75	6.2	---	2.82	14.5	---	0	4.5	---	30.9	18.5	1.60	1.84
C	71	L	45.0	40.0	15.0	11	2.0	5.0	13.0	15.0	10.0	0.75	7.9	---	0.74	9.5	---	25	1.5	---	25.2	11.0	1.80	1.89
Miami			7%		---		---		---				albedo not populated					no restriction within 200 cm						
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Brookston			3%		---		---		---				0.09					no restriction within 200 cm						
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit				Slope	T Factor					Taxonomic Order		Albedo Dry		Restriction and Depth to Top								
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*	*< ---------- Pct ---------- >*						*< -- g/cm3 -- >*	
Ed:																									
Edwards, drained			100%				0.5	1					Histosols		0.06		no restriction within 200 cm								
Oa1	25	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	65.00	---	7.6	21.88	162.5	---	10	---	---	50.0	33.0	0.45	---
Oa2	56	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	65.00	---	7.6	21.88	162.5	---	10	---	---	50.0	33.0	0.45	---
Lma	71	MARL	15.0	67.0	18.0	---	0.0	2.0	3.0	6.0	6.0	2.00	---	7.9	2.33	6.0	---	50	1.5	---	---	1.3	0.45	0.47
Ht:																									
Houghton, undrained			85%				0.5	2					Histosols		0.04		no restriction within 200 cm								
Oa1	30	MUCK	---	---	---	2	---	---	---	---	---	70.00	---	6.0	21.70	145.0	---	0	---	---	53.3	17.8	0.30	0.80
Oa2	60	MUCK	---	---	---	8	---	---	---	---	---	75.00	---	5.7	21.70	160.0	---	0	---	---	54.8	12.7	0.20	0.75
Oa3	110	MUCK	---	---	---	5	---	---	---	---	---	75.00	---	5.4	21.70	160.0	---	0	---	---	55.6	9.5	0.15	0.70
Palms, undrained			8%				0.5	1					Histosols		0.04		no restriction within 200 cm								
Oa	89	MUCK	---	---	---	5	---	---	---	---	---	65.00	---	5.7	10.00	130.0	---	0	---	---	53.7	11.7	0.21	0.75
Cg	111	CL	34.0	33.0	33.0	5	3.0	4.0	6.0	11.0	10.0	0.50	7.0	---	0.06	10.6	---	5	2.1	---	28.5	23.8	1.75	1.87
Muskego, undrained			7%				0.5	1					Histosols		0.04		no restriction within 200 cm								
Oa	69	MUCK	---	---	---	5	---	---	---	---	---	75.00	---	5.8	21.88	150.0	---	0	---	---	54.8	12.7	0.20	0.75
Lco	131	COP-PEAT	4.0	70.0	26.0	4	0.0	0.0	1.0	1.0	2.0	35.00	7.0	7.0	0.92	85.0	---	0	---	---	47.0	38.7	1.00	---

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit		Slope		T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top								
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*		*< ---------- Pct ---------- >*				*< -- g/cm3 -- >*	
Hw:																								
Houghton, drained			75%		1.0		2		Histosols				0.06					no restriction within 200 cm						
Op	23	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	---	7.0	21.88	185.0	---	0	---	---	50.0	33.0	0.45	---
Oa	180	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	---	6.5	21.88	185.0	139.0	0	---	---	50.0	33.0	0.20	---
Adrian, drained			7%		1.0		1		Histosols				0.06					no restriction within 200 cm						
Op	23	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	7.0	---	21.88	185.0	---	0	---	---	50.0	33.0	0.45	---
Oa	63	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	6.5	---	21.88	185.0	---	0	---	---	50.0	33.0	0.20	---
Cg	117	S	89.0	6.0	5.0	9	2.0	2.0	30.0	40.0	15.0	0.30	---	7.6	91.74	2.0	---	20	1.5	12.7	9.3	3.4	1.58	1.66
Edwards, drained			7%		0.5		1		Histosols				0.06					no restriction within 200 cm						
Op	23	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	7.0	---	21.88	185.0	---	0	---	---	50.0	33.0	0.45	---
Oa	38	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	6.5	---	21.88	185.0	---	0	---	---	50.0	33.0	0.20	---
Lma	142	MR-MAT	17.0	65.0	18.0	---	0.0	2.0	3.0	6.0	6.0	10.00	8.1	---	0.92	8.0	---	70	1.5	---	---	---	1.00	1.05
Muskego, drained			6%		1.0		1		Histosols				0.06					no restriction within 200 cm						
Op	23	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	7.0	---	21.88	185.0	---	0	---	---	50.0	33.0	0.45	---
Oa	46	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	6.5	---	21.88	185.0	---	0	---	---	50.0	33.0	0.20	---
Lco	134	COP-MAT	0.0	0.0	0.0	4	0.0	0.0	0.0	0.0	0.0	35.00	7.0	---	0.92	84.0	---	0	4.5	---	---	---	1.00	---

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit		Slope		T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*	*< ---------- Pct ---------- >*					*< -- g/cm3 -- >*	
Hw:																								
Palms, drained			5%		1.0		1		Histosols				0.02				no restriction within 200 cm							
Oa	89	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	75.00	6.5	---	21.88	185.0	---	0	---	---	50.0	33.0	0.20	---
Cg	114	L	41.0	38.0	21.0	11	1.0	3.0	21.0	10.0	6.0	1.50	---	7.6	7.76	8.5	---	15	1.5	---	28.3	14.7	1.60	1.68
KoB:																								
Kosciusko			100%		4.0		4		Alfisols				0.23				strongly contrasting textural stratification at 61 to 101cm							
Ap	20	SL	65.0	28.0	7.0	10	4.0	10.0	27.0	18.0	6.0	2.00	6.5	---	9.17	14.0	---	0	1.5	---	17.4	8.7	1.45	1.52
Bt1,Bt2,	56	GR-SCL	60.0	15.0	25.0	28	8.0	15.0	20.0	12.0	5.0	0.75	6.2	---	9.17	11.0	---	0	4.5	---	18.5	12.7	1.60	1.91
BC2	10	GR-LS	86.0	5.0	9.0	30	9.0	18.0	29.0	26.0	4.0	0.75	6.7	---	28.23	7.0	---	0	1.5	15.3	11.8	5.1	1.70	1.81
2C	66	SR- S GR-COS	90.0	7.0	3.0	29	21.0	27.0	27.0	12.0	3.0	0.75	7.9	---	141.14	3.0	---	30	1.5	8.6	6.1	2.0	1.65	1.77
KsC:																								
Kosciusko			100%		9.0		4		Alfisols				0.23				strongly contrasting textural stratification at 61 to 101cm							
Ap	20	GR-SL	65.0	28.0	7.0	22	4.0	10.0	27.0	18.0	6.0	2.00	6.5	---	9.17	14.0	---	0	1.5	---	15.7	8.2	1.55	1.64
Bt1,Bt2,	56	GR-SCL	60.0	15.0	25.0	22	8.0	15.0	20.0	12.0	5.0	0.75	6.2	---	9.17	11.0	---	0	4.5	---	19.5	13.3	1.60	1.89
BC2	10	GR-LS	86.0	5.0	9.0	30	9.0	18.0	29.0	26.0	4.0	0.75	6.7	---	28.23	7.0	---	0	1.5	15.3	11.8	5.1	1.70	1.81
2C	66	SR- S GR-COS	90.0	7.0	3.0	29	21.0	27.0	27.0	12.0	3.0	0.75	7.9	---	141.14	3.0	---	30	1.5	8.6	6.1	2.0	1.70	1.83

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit		Slope		T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*		*< ---------- Pct ---------- >*				*< -- g/cm3 -- >*	
Mc:																								
Martisco, undrained			100%		0.5		1		Inceptisols				0.06					no restriction within 200 cm						
Oa1	30	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	65.00	7.9	---	21.88	162.5	---	5	---	---	50.0	33.0	0.45	---
Oa2	6	MUCK	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	65.00	7.9	---	21.88	162.5	---	5	---	---	50.0	33.0	0.45	---
Lma	116	MARL	17.0	65.0	18.0	---	0.0	2.0	3.0	6.0	6.0	2.00	7.9	---	2.33	6.0	---	50	1.5	---	---	0.8	0.40	0.42
MhB:																								
Miami			85%		3.0		3		Alfisols				0.30					densic material at 89 to 102cm						
Ap	23	L	45.0	40.0	15.0	2	2.0	3.0	15.0	17.0	8.0	2.00	6.5	---	9.17	11.0	---	0	1.4	---	26.4	11.2	1.45	1.51
Bt1	10	L	38.0	38.0	24.0	4	1.0	3.0	11.0	15.0	8.0	0.75	6.0	---	9.17	15.0	---	0	2.4	---	28.8	14.8	1.50	1.62
Bt2	46	CL	36.0	33.0	31.0	4	1.0	3.0	9.0	15.0	8.0	0.50	6.2	---	9.17	15.0	---	0	2.9	---	32.2	20.1	1.55	1.69
BCt	12	L	37.0	38.0	25.0	6	2.0	4.0	8.0	14.0	9.0	0.50	7.4	---	2.82	7.5	---	8	1.4	---	29.7	16.7	1.70	1.78
Cd	109	L	38.0	44.0	18.0	6	3.0	4.0	8.0	14.0	9.0	0.50	7.9	---	0.22	6.0	---	25	1.0	---	24.7	14.8	1.85	1.91
Crosier			9%		3.0		3		Alfisols				0.29					densic material at 76 to 112cm						
Ap	23	L	43.0	42.0	15.0	4	1.0	5.0	12.0	16.0	9.0	2.00	6.5	---	9.17	8.2	---	0	1.1	---	26.0	10.9	1.43	1.48
Bt	53	CL	40.0	32.0	28.0	4	2.0	5.0	11.0	15.0	7.0	0.50	6.2	---	2.82	14.8	---	0	2.7	---	31.1	18.2	1.55	1.68
BC	21	L	45.0	40.0	15.0	8	2.0	2.0	15.0	16.0	10.0	0.50	7.6	---	2.82	7.9	---	8	1.1	---	24.4	9.8	1.70	1.76
Cd	103	L	45.0	40.0	15.0	8	2.0	2.0	15.0	16.0	10.0	0.50	7.9	---	0.92	7.9	---	25	1.1	---	24.8	10.4	1.80	1.87
Brookston			6%		1.0		5		Mollisols				0.17					no restriction within 200 cm						
Ap	25	L	42.0	37.0	21.0	3	4.0	5.0	8.0	13.0	12.0	3.50	6.7	---	9.17	18.2	---	0	2.6	---	30.3	15.8	1.36	1.47
Btg	87	CL	33.0	37.0	30.0	2	3.0	4.0	6.0	10.0	10.0	1.25	6.7	---	9.17	24.1	---	0	4.2	---	31.7	18.8	1.40	1.59
C	88	L	42.0	38.0	20.0	5	4.0	6.0	7.0	13.0	12.0	0.75	7.9	---	2.82	16.4	---	20	2.3	---	26.6	12.0	1.46	1.57

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit				Slope	T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*		*< ---------- Pct ---------- >*				*< -- g/cm3 -- >*	
MhC:																								
Miami			85%		9.0		3			Alfisols				0.30		densic material at 84 to 102cm								
Ap	20	L	45.0	40.0	15.0	2	2.0	3.0	15.0	17.0	8.0	2.00	6.5	---	9.17	11.0	---	0	1.4	---	26.4	11.2	1.45	1.51
Bt1	13	L	38.0	38.0	24.0	4	1.0	3.0	11.0	15.0	8.0	0.75	6.0	---	9.17	15.0	---	0	2.4	---	28.8	14.8	1.50	1.62
Bt2	43	CL	36.0	33.0	31.0	4	1.0	3.0	9.0	15.0	8.0	0.50	6.2	---	9.17	15.0	---	0	2.9	---	32.2	20.1	1.55	1.69
BCt	13	L	37.0	38.0	25.0	6	2.0	4.0	8.0	14.0	9.0	0.50	7.4	---	2.82	7.5	---	8	1.4	---	29.7	16.7	1.70	1.78
Cd	111	L	38.0	44.0	18.0	6	3.0	4.0	8.0	14.0	9.0	0.50	7.9	---	0.22	6.0	---	25	1.0	---	23.5	13.4	1.85	1.91
Crosier			9%		3.0		3			Alfisols				0.29		densic material at 76 to 112cm								
Ap	23	L	43.0	42.0	15.0	4	1.0	5.0	12.0	16.0	9.0	2.00	6.5	---	9.17	8.2	---	0	1.1	---	26.0	10.9	1.43	1.48
Bt	53	CL	40.0	32.0	28.0	4	2.0	5.0	11.0	15.0	7.0	0.50	6.2	---	2.82	14.8	---	0	2.7	---	31.1	18.2	1.55	1.68
BC	21	L	45.0	40.0	15.0	8	2.0	2.0	15.0	16.0	10.0	0.50	7.6	---	2.82	7.9	---	8	1.1	---	24.4	9.8	1.70	1.76
Cd	103	L	45.0	40.0	15.0	8	2.0	2.0	15.0	16.0	10.0	0.50	7.9	---	0.92	7.9	---	25	1.1	---	24.8	10.4	1.80	1.87
Brookston			6%		1.0		5			Mollisols				0.17		no restriction within 200 cm								
Ap	28	L	42.0	37.0	21.0	3	4.0	5.0	8.0	13.0	12.0	3.50	6.7	---	9.17	18.2	---	0	2.6	---	29.3	15.3	1.36	1.47
Btg	87	CL	33.0	37.0	30.0	2	3.0	4.0	6.0	10.0	10.0	1.25	6.7	---	9.17	24.1	---	0	4.2	---	31.7	18.8	1.40	1.59
C	85	L	42.0	38.0	20.0	5	4.0	6.0	7.0	13.0	12.0	0.75	7.9	---	2.82	16.4	---	20	2.3	---	26.6	12.0	1.46	1.57
MkC3:																								
Miami, severely eroded			97%		9.0		2			Alfisols				0.30		densic material at 61 to 102cm								
Ap	15	CL	28.0	43.0	29.0	3	2.0	2.2	6.4	10.6	6.8	1.50	6.5	---	9.17	15.6	---	0	1.5	---	30.6	17.2	1.46	1.52
Bt	58	CL	31.0	38.0	31.0	4	2.0	3.0	7.0	12.0	7.0	0.25	6.1	---	9.17	16.2	---	0	4.5	---	32.0	19.8	1.55	1.78
BCt	13	L	38.0	40.0	22.0	6	2.0	4.0	10.0	13.0	9.0	0.25	7.4	---	2.82	11.5	---	10	1.5	---	28.3	14.5	1.70	1.78
Cd	117	L	45.0	40.0	15.0	7	4.0	4.0	10.0	19.0	8.0	0.25	7.9	---	0.22	7.9	---	33	1.5	---	21.0	10.8	1.85	1.94

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit				Slope		T Factor			Taxonomic Order			Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*		*< ---------- Pct ---------- >*					*< -- g/cm3 -- >*	
MkC3:																								
Crosby			3%		1.0		3					Alfisols			0.37			densic material at 51 to 102cm						
Ap	20	SIL	18.0	64.0	18.0	2	1.0	2.0	4.0	6.0	5.0	2.00	6.2	---	9.17	11.0	10.0	0	1.5	---	28.1	13.0	1.45	1.52
BE	8	SIL	20.0	63.0	17.0	2	2.0	2.0	5.0	6.0	5.0	1.50	5.9	---	9.17	10.0	9.0	0	1.5	---	27.1	11.8	1.45	1.52
Bt	8	SIL	21.0	55.0	24.0	2	3.0	3.0	5.0	5.0	5.0	0.75	5.5	---	9.17	14.0	9.0	0	1.5	---	30.0	15.7	1.55	1.62
2Bt	35	CL	21.0	43.0	36.0	4	1.0	3.0	5.0	7.0	5.0	0.75	6.6	---	9.17	21.0	17.0	0	4.5	---	34.1	23.6	1.55	1.78
2BCt	20	L	36.0	40.0	24.0	8	5.0	5.0	9.0	8.0	9.0	0.25	7.5	---	0.92	12.0	---	11	2.5	---	28.4	15.1	1.65	1.79
2Cd	112	L	40.0	45.0	15.0	9	4.0	5.0	8.0	14.0	9.0	0.25	8.1	---	0.22	5.0	---	35	1.5	---	20.3	10.5	1.85	1.94
Mm:																								
Millgrove			100%		1.0		5					Mollisols			0.09			no restriction within 200 cm						
Ap	28	L	25.0	49.0	26.0	9	2.0	3.0	7.0	8.0	5.0	4.00	6.3	---	9.17	21.0	---	0	1.5	---	31.9	20.5	1.55	1.63
A	5	L	26.0	49.0	25.0	9	2.0	3.0	7.0	8.0	6.0	4.50	6.8	---	9.17	21.0	---	0	1.5	---	31.9	20.5	1.55	1.63
BEg	8	L	26.0	49.0	25.0	9	2.0	3.0	7.0	8.0	6.0	1.25	6.8	---	9.17	21.0	---	0	1.5	---	31.9	20.5	1.55	1.63
Btg1,2Bt	40	CL	37.0	36.0	27.0	12	3.0	6.0	12.0	12.0	4.0	1.25	6.7	---	9.17	16.5	---	0	4.5	---	29.6	17.4	1.60	1.85
2BCg	8	GR-L	40.0	40.0	20.0	26	3.0	7.0	12.0	12.0	6.0	0.75	7.6	---	9.17	12.5	---	10	1.5	---	23.3	11.6	1.70	1.80
2Cg	63	GR-SL	55.0	33.0	12.0	30	8.0	15.0	15.0	9.0	8.0	0.75	7.9	---	28.34	8.5	---	28	1.5	---	13.7	7.0	1.80	1.92
Pa:																								
Palms, drained			100%		0.5		1					Histosols			0.02			no restriction within 200 cm						
Oa1	30	MUCK	---	---	---	---	---	---	---	---	---	65.00	---	5.8	21.88	162.5	---	0	---	---	50.0	33.0	0.45	---
Oa2	34	MUCK	---	---	---	---	---	---	---	---	---	65.00	---	5.8	21.88	162.5	---	0	---	---	50.0	33.0	0.45	---
2Cg	88	L	40.0	37.0	23.0	13	1.0	3.0	20.0	10.0	6.0	0.50	---	5.8	7.76	12.5	---	0	1.5	---	27.2	14.2	1.65	1.73

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit				Slope	T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*		*< ---------- Pct ---------- >*				*< -- g/cm3 -- >*	
Ry:																								
Riverdale			90%				1.0		5			Alfisols			0.23			no restriction within 200 cm						
Ap	18	LS	84.0	9.0	7.0	8	2.0	5.0	36.0	36.0	5.0	1.50	6.8	---	91.74	7.5	---	0	1.5	20.6	15.6	6.4	1.55	1.62
A	12	LS	80.0	13.0	7.0	8	3.0	5.0	35.0	27.0	10.0	0.75	6.8	---	91.74	5.0	---	0	1.5	19.5	14.4	5.3	1.60	1.68
E	54	LS	80.0	13.0	7.0	8	3.0	5.0	35.0	27.0	10.0	0.75	5.8	---	91.74	5.0	---	0	1.5	19.5	14.4	5.3	1.60	1.68
Bt1,Bt2,	30	SL	55.0	35.0	10.0	8	2.0	4.0	25.0	20.0	4.0	0.75	7.0	---	28.23	7.0	---	0	1.5	---	16.4	7.2	1.60	1.68
C	38	S	90.0	8.0	2.0	10	3.0	10.0	40.0	30.0	7.0	0.75	7.9	---	141.14	3.0	---	18	1.5	11.1	7.6	2.2	1.70	1.79
Brems			7%		---			---			---			albedo not populated				no restriction within 200 cm						
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cohoctah			3%		---			---			---			0.16				no restriction within 200 cm						
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sh:																								
Shoals			85%				1.0		5			Inceptisols			0.29			no restriction within 200 cm						
Ap	25	L	40.0	38.0	22.0	0	2.0	4.0	6.0	15.0	13.0	3.00	7.0	---	9.17	21.0	---	0	1.5	---	30.5	16.2	1.40	1.45
B	82	L	28.0	48.0	24.0	0	1.0	2.0	6.0	8.0	11.0	1.00	7.0	---	9.17	15.0	---	0	1.5	---	29.9	15.2	1.45	1.50
C	93	SR- SL SIL	42.0	40.0	18.0	7	2.0	5.0	15.0	11.0	9.0	0.50	7.4	---	9.17	12.0	---	5	1.5	---	20.0	11.2	1.48	1.55

Wind Erosion Prediction System Related Attributes

Steuben County, Indiana

Map symbol and soil name			Pct. of map unit		Slope		T Factor		Taxonomic Order				Albedo Dry			Restriction and Depth to Top							
Hz	Thick-ness	Texture	Sand	Silt	Clay	Frag-ments	VC OS	CO S	M S	F S	VF S	OM	pH H2O	pH CaCl2	Ks	CEC-7	ECEC	CaCO3	LEP	0.1 bar H2O	0.33 bar H2O	15 bar H2O	Db 0.33 bar	Db oven dry
	cm		*< ---------- Pct ---------- >*												*um/s*	*< -- meq/100 g -- >*		*< ---------- Pct ---------- >*				*< -- g/cm3 -- >*	
Sh:																								
Sloan			8%		1.0		5		Mollisols				0.23			no restriction within 200 cm								
Ap	30	SICL	15.0	55.0	30.0	0	0.5	0.5	1.0	5.0	8.0	5.00	7.0	---	9.17	25.0	---	0	4.5	---	34.4	22.6	1.38	1.55
Bg	76	SICL	18.0	50.0	32.0	0	0.5	0.5	1.0	5.0	11.0	1.25	7.0	---	9.17	15.0	---	0	4.5	---	32.6	19.4	1.40	1.60
Cg	94	SR- SL SICL	30.0	50.0	20.0	10	5.0	5.0	10.0	5.0	5.0	0.25	7.4	---	2.82	12.0	---	5	1.5	---	24.6	10.2	1.35	1.45
Eel			7%		1.0		5		Inceptisols				0.29			no restriction within 200 cm								
Ap	23	L	32.0	46.0	22.0	1	1.0	2.0	7.0	12.0	10.0	2.25	6.7	---	9.17	16.0	---	0	1.5	---	29.8	15.5	1.45	1.50
Bw	79	CL	45.0	28.0	27.0	2	1.0	2.0	14.0	16.0	12.0	2.00	7.0	---	9.17	16.0	---	0	1.5	---	31.6	18.2	1.40	1.45
C	98	SR- L SICL	50.0	32.0	18.0	5	3.0	4.0	15.0	17.0	11.0	0.50	7.8	---	23.29	12.0	---	8	1.5	---	25.8	11.0	1.50	1.55
Ud:																								
Udorthents			100%		6.0		---		Entisols				albedo not populated			no restriction within 200 cm								
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
W:																								
Water			100%		---		---		---				albedo not populated			no restriction within 200 cm								
	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Wind Erosion Prediction System Related Attributes

This table shows estimates of some physical and chemical characteristics and features that affect soil behavior for use in the Wind Erosion Prediction System model. These estimates are given for the whole soil and for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils. The representative value for each property is indicated.

"T Factor" is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

"Taxonomic Order". Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in "sol." An example is Alfisols.

"Albedo, dry", is the estimated ratio of the incident shortwave (solar) radiation that is reflected by the air-dry, less than 2 mm fraction of the soil surface to that received by it. Soil albedo, as a function of soil color and angle of incidence of the solar radiation, depends on the inherent color of the parent material, organic matter content, and weathering conditions. Estimates of the evapotranspiration rates and for predicting soil water balances requires the albedo. Evapotranspiration and soil hydrology models that are part of Water Quality and Resource Assessment programs require this information.

"Restriction and Depth to Top" is a restrictive layer that is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. "Depth to top" is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

The thickness of each layer is indicated.

"Texture" is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

"Sand" as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. The estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. Sand fractions of "VCOS" very coarse sand, "COS" coarse sand, "MS" medium sand, "FS" fine sand and "VFS" very fine sand are important in identifying the particle sizes susceptible to wind erosion.

"Silt" as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. The estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

"Clay" as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. The estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

"Rock fragments" larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

"Organic matter" is the plant and animal residue in the soil at various stages of decomposition. The estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

"Soil reaction" is a measure of acidity or alkalinity. It is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the

risk of corrosion.

"Saturated hydraulic conductivity" (Ks) refers to the ability of a soil to transmit water or air. The term "permeability" indicates saturated hydraulic conductivity (Ksat). The estimates in the table indicate the rate of water movement, in micrometers per second, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Ksat is considered in the design of soil drainage systems and septic tank absorption fields.

"Cation-exchange capacity" is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

"Effective cation-exchange capacity" refers to the sum of extractable bases plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

"Calcium carbonate equivalent" is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

"Linear extensibility" refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

"Moist bulk density" is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.