

THE "FERTILIZER FACTORY" EFFECT

The Beneficial Value of Manure

TYPE OF ANIMAL MANURE	TOTAL N (see note 5)	AVAIL N (see notes 1 & 5)	PHOSPHORUS as P ₂ O ₅ (see note 5)	POTASSIUM as K ₂ O (see note 5)	% MOISTURE (see note 5)	RATE OF APPLICATION (tons / gallons) (see note 2)	LBS OF avail N - P ₂ O ₅ - K ₂ O APPLIED PER ACRE		NUTRIENTS APPLIED IN TERMS OF FERTILIZER MATERIALS		\$ VALUE PER TON or 1,000 GALLONS (see notes 3 & 6)	\$ VALUE PER ACRE OF APPLIED NUTRIENTS (see notes 3 & 6)
							rate/a	nutrient	rate/a	material		
ANALYSIS IN LBS/TON or LBS/1000 GALLONS												
LAYER HENS	50.20	17.51	71.46	51.38	28.9%	4.0	70	avail N	250	28-0-0	\$38.37	\$153.48
							286	P ₂ O ₅	621	0-46-0		
							206	K ₂ O	343	0-0-60		
TURKEY FINISHER	68.50	23.97	77.05	46.09	27.9%	4.0	96	avail N	342	28-0-0	\$41.44	\$165.78
							308	P ₂ O ₅	670	0-46-0		
							184	K ₂ O	307	0-0-60		
LAYER PULLETS	53.57	18.75	60.97	50.02	43.1%	4.0	75	avail N	268	28-0-0	\$35.42	\$141.68
							244	P ₂ O ₅	530	0-46-0		
							200	K ₂ O	333	0-0-60		
SWINE FINISHER DEEP PIT	44.80	17.92	29.26	32.49	94.5%	6,000	108	avail N	384	28-0-0	\$22.09	\$132.52
							176	P ₂ O ₅	382	0-46-0		
							195	K ₂ O	325	0-0-60		
SWINE NURSERY DEEP PIT	29.21	11.68	14.97	24.20	97.1%	7,500	88	avail N	313	28-0-0	\$13.77	\$103.27
							112	P ₂ O ₅	244	0-46-0		
							182	K ₂ O	303	0-0-60		
SWINE FINISHER-TREATMENT LAGOON	6.66	1.86	3.21	12.56	99.1%	27,000	50	avail N	180	28-0-0	\$4.18	\$112.97
							87	P ₂ O ₅	188	0-46-0		
							339	K ₂ O	565	0-0-60		
SWINE SOW DEEP PIT	24.60	8.36	23.17	19.02	97.2%	7,500	63	avail N	224	28-0-0	\$13.93	\$104.49
							174	P ₂ O ₅	378	0-46-0		
							143	K ₂ O	238	0-0-60		
DEEP LITTER SWINE MANURE	11.29	3.95	8.87	8.84	58.0%	20.0	79	avail N	282	28-0-0	\$5.93	\$118.61
							177	P ₂ O ₅	386	0-46-0		
							177	K ₂ O	295	0-0-60		
CATTLE PEN PACK	18.11	6.52	8.80	13.35	74.0%	15.0	98	avail N	349	28-0-0	\$7.79	\$116.81
							132	P ₂ O ₅	287	0-46-0		
							200	K ₂ O	334	0-0-60		
CATTLE HOLDING POND	10.93	3.28	6.42	9.10	96.0%	20,000	66	avail N	234	28-0-0	\$4.99	\$99.85
							128	P ₂ O ₅	279	0-46-0		
							182	K ₂ O	303	0-0-60		

NOTES:

- 40% of swine pit manure nitrogen, 28% of swine lagoon effluent nitrogen, 36% of cattle pen pack manure nitrogen, 35% of poultry manure nitrogen, 30% compost nitrogen assumed available to 1st year crop after field application (with estimated field losses).
- NOT recommendations: rates chosen to emulate normal farm applications. *APPLICATION RATES SHOULD ALWAYS BE DETERMINED BY ACTUAL ANALYSIS.*
- Based on 1st year available nitrogen calculations. All other nutrients calculated at 100% available to the crop *DOES NOT INCLUDE VALUE OF ORGANIC MATTER, LIME, OR TRACE MINER*
- Phosphate and potash in effluent lagoon manure: the majority of these nutrients and some of the nitrogen is retained in the bottom sludge, which must be removed eventually.
- Manure nutrients calculated from actual manure analyses, not on table values.
- Values based upon: lb. Nitrogen = \$0.38 lb. P₂O₅ = \$0.30 lb. K₂O = \$0.20