

## Worksheet I - "How Far Can You Afford to Haul Manure?"

1. Calculate the nutrient content and value per unit of your manure.

A "unit" is either a 1000 gallons (liquid/slurry) or a ton (solid/semi-solid).

From Manure Analysis	Manure Type: (lbs/unit)	Availability Factor*	Available	Fertilizer	Value Per Unit (\$/unit)
			Nutrients (lbs/unit)	Equivilant Value** (\$/lb)	
Ammonia-N		x	=	x	=
Organic-N		x	=	x	=
P <sub>2</sub> O <sub>5</sub>		O-3.3379.4524 0 TD -.0001 Tc (3.04)Tj /TT4 1 Tf -43.7619 -1.2852 TD 0 Tc (P)Tj 6 0 0 6 8			

## Worksheet II - Calculating Fertilizer Nutrient Value

### 1. Calculate the value of nitrogen (N) per pound using urea

Urea analysis: 46-0-0 (920 lbs N per ton)

Fertilizer				EXAMPLE			
Cost (\$/ton)	lbs N per ton	N Value (\$/lb)		Fertilizer	Cost (\$/ton)	lbs N per ton	N Value (\$/lb)
[ ]	÷ [ 920 ]	= [ ]			\$600	÷ [ 920 ]	= [ \$0.65 ]

### 2. Calculate the value of phosphate ( $P_2O_5$ ) per pound using MAP

MAP analysis: 12-52-0 ( 240 lbs N and 1040 lbs of  $P_2O_5$  per ton)

Fertilizer				N Value (Step 1.)	Value of $P_2O_5$ per ton	$P_2O_5$ Value (\$/lb)
Cost (\$/ton)	lbs N per ton			(\$/lb)	lbs $P_2O_5$ per ton	Value (\$/lb)
[ ]	- ( [ 240 ] × [ ] )	= [ ]	÷ [ 1040 ]	= [ ]		

### EXAMPLE

Fertilizer				N Value (Step 1.)	Value of $P_2O_5$ per ton	$P_2O_5$ Value (\$/lb)
Cost (\$/ton)	lbs N per ton			(\$/lb)	lbs $P_2O_5$ per ton	Value (\$/lb)
\$800	- ( [ 240 ] × [ \$0.65 ] )	= [ \$643 ]	÷ [ 1040 ]	= [ \$0.62 ]		

### 3. Calculate the value of potash ( $K_2O$ ) per pound using muriate of potash

Muriate of Potash analysis: 0-0-60 (1200 lbs  $K_2O$  per ton)

Fertilizer				lbs $K_2O$ per ton	K2O Value (\$/lb)		EXAMPLE			
Cost (\$/ton)							Fertilizer	Cost (\$/ton)	lbs $K_2O$ per ton	K2O Value (\$/lb)
[ ]	÷ [ 1200 ]	= [ ]						\$600	÷ [ 1200 ]	= [ \$0.50 ]

Organic-N Availability*			
Percent Dry Matter of Manure	(In First Year)		
	Soil Drainage Class	Availability Factor	
< 20%	Well Drained - tilled in	0.36	
< 20%	Poorly drain - tilled in	0.24	
< 20%	Well Dr. - surface appl	0.24	
< 20%	Prly. Dr. - surface appl	0.16	
> 20%	Well Drained - tilled in	0.30	
> 20%	Poorly drain - tilled in	0.20	
> 20%	Well Dr. - surface appl	0.20	
> 20%	Prly. Dr. - surface appl	0.14	

\* Source: Nutrient Recommendations for Field Crops in Vermont (W. Jokela), Un. of Vermont

Season of Spreading	Days From Spreading To Incorporation	Availability Factor
Spring	< 1 hr	0.80
Spring	1 to 8 hrs.	0.70
Spring	1 day	0.55
Spring	2 days	0.50
Spring	3 to 4 days	0.45
Spring	> 4 days	0.40
Spring	Unincorporated	0.40
Fall	Within 2 days	0.30
Fall	Unincorporated	0.15