



CALCULATING NUTRIENT VALUE OF POULTRY LITTER

1. **Nitrogen** - based on urea (46-0-0), **or** based on ammonium nitrate (34-0-0):

$$\text{\$ } \underline{\hspace{2cm}} \text{ per ton urea} \div 920 \text{ lb N per ton urea} = \text{\$ } \underline{\hspace{2cm}} \text{ per lb of N}$$

OR

$$\text{\$ } \underline{\hspace{2cm}} \text{ per ton ammonium nitrate} \div 680 \text{ lb N / ton} = \text{\$ } \underline{\hspace{2cm}} \text{ per lb of N}$$

2. **Phosphorus** - based on diammonium phosphate (DAP, 18-46-0)

- (a) DAP contains 360 lb of N per ton, so credit N contribution first:

$$360 \text{ lb} \times \text{\$ } \underline{\hspace{2cm}} \text{ per lb of N (from above)} = \text{\$ } \underline{\hspace{2cm}} \text{ value of N per ton of 18-46-0}$$

- (b) $\text{\$ } \underline{\hspace{2cm}} \text{ per ton 18-46-0} - \text{\$ } \underline{\hspace{2cm}} \text{ value of N} = \text{\$ } \underline{\hspace{2cm}} \text{ value of P}_2\text{O}_5 \text{ per ton 18-46-0}$

- (c) $\text{\$ } \underline{\hspace{2cm}} \text{ value of P}_2\text{O}_5 \text{ per ton 18-46-0} \div 920 \text{ lb P}_2\text{O}_5 \text{ per ton} = \text{\$ } \underline{\hspace{2cm}} \text{ per lb P}_2\text{O}_5$

3. **Potash** - based on 0-0-60

$$\text{\$ } \underline{\hspace{2cm}} \text{ per ton 0-0-60} \div 1200 \text{ lb K}_2\text{O per ton} = \text{\$ } \underline{\hspace{2cm}} \text{ per lb K}_2\text{O}$$

CALCULATING THE NUTRIENT VALUE OF LITTER

LITTER ANALYSIS FROM LAB:

(pounds per ton, “as is” or “wet” basis)

Total N: _____ lb per ton of litter x 70% available* = _____ lb available N per ton litter

* Estimated total availability within 2-3 years of surface application. Availability in same season of application may be as low as 50%. If litter is incorporated, 80-90% of total N can be counted as available.

P₂O₅: _____ lb per ton of litter

K₂O: _____ lb per ton of litter

VALUE OF LITTER:

N: _____ lb available N per ton x \$ _____ per lb commercial N = \$ _____

+

P: _____ lb P₂O₅ per ton x \$ _____ per lb commercial P₂O₅ = \$ _____

+

K: _____ lb K₂O per ton x \$ _____ per lb commercial K₂O = \$ _____

TOTAL NUTRIENT VALUE PER TON OF LITTER \$ _____

Note: Preliminary estimates suggest a liming value for poultry litter of \$2 or more per ton, due to Calcium, Magnesium and Potassium contents. There may be additional benefits from organic matter improvements to soil, but these are difficult to quantify. All estimates of economic value apply **only** to factors that are **deficient** in soil where litter is applied.