(1)

	lbs	N	P	K	S	
				lbs		
Urea	4000	1840	-	-	-	46-0-0
DAP	2000	360	920	-	-	18-46-0
AMS	1000	210	-	-	240	21-0-0-24
Total	7000	2410	920	0	240	

Need 1 work

$$\frac{4000 \text{ lbs urea}}{1} \times \frac{46 \text{ lbs N}}{100 \text{ lbs urea}} = \frac{\text{lbs N}}{1}$$

$$\frac{2000 \text{ lbs DAP}}{1} \times \frac{18 \text{ lbs N}}{100 \text{ lbs DAP}} = \frac{360 \text{ lbs N}}{1}$$

$$\frac{2000 \text{ lbs DAP}}{1} \cdot \frac{46 \text{ lbs } P_2O_5}{100 \text{ lbs DAP}} = \frac{920 \text{ lbs } P_2O_5}{1}$$

$$\frac{1000 \text{ lbs AMS}}{1} \cdot \frac{21 \text{ lbs N}}{100 \text{ lbs AMS}} = \frac{210 \text{ lbs N}}{1}$$

$$\frac{1000 \text{ lbs AMS}}{1} \cdot \frac{24 \text{ lbs S}}{100 \text{ lbs AMS}} = \frac{240 \text{ lbs S}}{1}$$

	N	P	K	S
Totals	$\frac{2410}{7000}$	$\frac{920}{7000}$	0	$\frac{240}{7000}$
	.344	.131	0	.034

$$\boxed{34 - 13 - 0 - 3}$$

2. AMS has two so price

$$\frac{\$598}{1\text{ ton AA}} \times \frac{1\text{ ton AA}}{2000\text{ lbs AA}} \times \frac{100\text{ lbs AA}}{82\text{ lbs N}} = \boxed{\frac{\$0.364}{1\text{ lb N}}}$$

3A.

$$\frac{10\text{ gal}^{10\text{-}34}}{1\text{ acre}} \times \frac{11.64\text{ lbs}}{1\text{ gal}^{10\text{-}34}} \cdot \frac{10\text{ lbs N}}{100\text{ lbs}_{10\text{-}34}} = \frac{\text{lbs N}}{1\text{ acre}} = \boxed{\frac{11.64\text{ lbs N}}{1\text{ acre}}}$$

B.

$$\frac{10\text{ gal}}{1\text{ acre}} \times \frac{11.64\text{ lbs}^{10\text{-}34}}{1\text{ gal}_{10\text{-}34}} = \frac{116.4\text{ lbs }10\text{-}34\text{-}0}{1\text{ acre}}$$

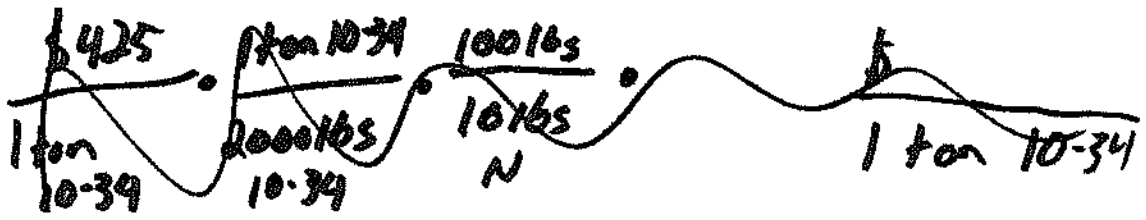
$$\frac{\$425}{1\text{ ton}_{10\text{-}34}} \cdot \frac{1\text{ ton}_{10\text{-}34}}{2000\text{ lbs}_{10\text{-}34}} \cdot \frac{116.4\text{ lbs }10\text{-}34}{1\text{ acre}} = \boxed{\frac{\$24.735}{1\text{ acre}}}$$

C.

$$\frac{116.4\text{ lbs}}{1\text{ acre}} \cdot \frac{100\text{ lbs }10\text{-}34}{34\text{ lbs P}_2\text{O}_5} =$$

$$\frac{116.4\text{ lbs }10\text{-}34}{1\text{ acre}} \cdot \frac{34\text{ lbs P}_2\text{O}_5}{100\text{ lbs}_{10\text{-}34}} = \boxed{\frac{39.576\text{ lbs P}_2\text{O}_5}{1\text{ acre}}}$$

3.0.



$$\frac{2000\ \text{lbs}_{10\text{-}34}}{1\ \text{ton}_{10\text{-}34}} \cdot \frac{10\ \text{lbs N}}{100\ \text{lbs}} \cdot \frac{\$050}{1\ \text{lb N}} = \frac{\$100}{1\ \text{ton } 10\text{-}34}$$ ← Value of nitrogen

i $10/34$

ii $\frac{\$425}{1\ \text{ton}} - \frac{\$100}{1\ \text{ton}} = \frac{\$325}{1\ \text{ton}}$

iii $\frac{\$325}{2000\ \text{lbs}_{10\text{-}34}} \cdot \frac{100\ \text{lbs}_{10\text{-}34}}{34\ \text{lbs } P_2O_5}$

$= \frac{\$\ 0.4779}{1\ \text{lb } P_2O_5}$

4A. $\frac{\$495}{1\text{ ton DAP}} \cdot \frac{1\text{ ton DAP}}{2000\text{ lbs DAP}} \cdot \frac{100\text{ lbs DAP}}{1\text{ acre}} = \boxed{\frac{\$24.75}{1\text{ acre}}}$

B. 18-46-0

$\frac{100\text{ lbs DAP}}{1\text{ acre}} \cdot \frac{46\text{ lbs } P_2O_5}{100\text{ lbs DAP}} = \boxed{46\text{ lbs } P_2O_5}$

C. $\frac{2000\text{ lbs DAP}}{1\text{ ton DAP}} \cdot \frac{18\text{ lbs N}}{100\text{ lbs DAP}} \cdot \frac{\$0.50}{1\text{ lb N}} = \frac{\$180}{1\text{ ton DAP}}$ ← value of N

i

ii $\frac{\$495}{1\text{ ton}} - \frac{\$180}{1\text{ ton}} = \frac{\$315}{1\text{ ton DAP}}$

iii $\frac{\$315}{1\text{ ton DAP}} \div \frac{2000\text{ lbs DAP}}{1\text{ ton DAP}} \cdot \frac{100\text{ lbs DAP}}{46\text{ lbs } P_2O_5} = \frac{\$0.3423}{1\text{ lb } P_2O_5}$

D. DAP

Guy

5. A.

N	P	K
100	20	10

K - Potash

i

$$\frac{60\text{ lbs}}{100\text{ lbs}} = \frac{\text{lbs Potash}}{1}$$

$$\frac{20\text{ lbs } K_2O}{1\text{ acre}} \cdot \frac{100\text{ lbs Potash}}{60\text{ lbs } K_2O} = \frac{\text{lbs Potash}}{1}$$

$$= \frac{16.8\text{ lbs Potash}}{1\text{ acre}}$$

ii P - DAP

$$\frac{20\text{ lbs } P_2O_5}{1\text{ acre}} \cdot \frac{100\text{ lbs DAP}}{46\text{ lbs } P_2O_5} = \frac{43.48\text{ lbs DAP}}{1\text{ acre}}$$

iii N in DAP

$$\frac{43.48\text{ lbs DAP}}{1\text{ acre}} \cdot \frac{18\text{ lbs N}}{100\text{ lbs DAP}} = \frac{7.8\text{ lbs N}}{1\text{ acre}}$$

IV. $100 - 7.8 = 92.17$ lbs N — from urea

$$\frac{92.17\text{ lbs N}}{1\text{ acre}} \cdot \frac{100\text{ lbs urea}}{46\text{ lbs N}} = 200\text{ lbs urea}$$

5. B.

$$\frac{200 \text{ lbs urea}}{1 \text{ acre}} \times \frac{2000 \text{ acres}}{1} \cdot \frac{\$380}{2000 \text{ lbs DAP}} = \frac{\$76000}{1}$$

(2000 lbs in 1 ton)

$$\sim \frac{44 \text{ lbs DAP}}{1 \text{ acre}} \times \frac{2000 \text{ acres}}{1} \cdot \frac{\$495}{2000 \text{ lbs DAP}} = \frac{\$21780}{1}$$

$$\frac{17 \text{ lbs Potash}}{1 \text{ acre}} \sim \frac{2000 \text{ acres}}{1} \cdot \frac{\$370}{1 \text{ ton}} = \frac{\$6290}{1}$$

$104,070

Big Bill