Name: KEY School: _____

Kentucky FFA Agronomy CDE

Rotation E: Fertilizer Problem

The following soil test and fertilizer cost sheet was provided by Southern States

Fertilizer & Cost on hand at Southern States

18-46-0 = $435/ton
0-0-60 = $325/ton
46-0-0 = $345/ton
Pellet Lime = $180/ton

1) Show all work for questions two through seven – chart is optional and only for your benefit. When calculating, utilize two decimals beyond the whole number. (20 points)

Fertilizer Rations	Element lbs./ton	$/ton	$/lb	Lbs. of fertilizer/acre	Cost/acre
18-46-0	920 – P 360 – N	435	0.22	565.22	124.35
46-0-0	920 – N	345	0.17	0	0
0-0-60	1200 - K	325	0.16	191.67	30.67

Phosphorus 920/2000 = 260/x;
920x = 520,000
x = 565.22

Potassium 1200/2000 = 115/x
1200x = 230,000
x = 191.67

565.22 * .18 (% Nitrogen present) = 101.74
20 (Nitrogen needed for field) – 101.74 = -81.74

2) How much total nitrogen was spread on the field? 8851.38 lbs (5 points)

3) If you could only afford half the cost of the required lime needed, how much would it cost for the entire field? $7,830 (5 points)

4) What does DAP stand for? Di-Ammonium Phosphate (5 points)

5) How many tons of Ammonia Nitrate was used on this field? 0 was used on the field (5 points)

6) How many total pounds per acre would be spread on the field (excluding lime and micronutrients)? 65,849.43 lbs. (5 points)

7) What is the total fertilizer cost for the field (excluding lime and micronutrients)? $13,486.74 (5 points)