



**Aglime:** is crushed limestone or dolomite used for soil treatment, primarily to reduce soil acidity. Soils tend to become acidic from heavy use of nitrogen-containing fertilizers, unless a soil conditioner is used. Using aglime, "lime", or agricultural lime, a finely-ground limestone or dolomite, to change the soil from acidic to nearly neutral particularly benefits crops by maximizing availability of plant nutrients, and also by reducing aluminum or manganese toxicity, promoting soil microbe activity, and improving the soil structure.

**Dolomitic Aglime:** (*Maybee & Ottawa Lake are both dolomitic aglime's*) Agricultural Lime made from limestone that contains magnesium carbonate ( $MgCO_3$ ) in an amount *approximately equivalent* to the calcium carbonate content in the stone. Limestone containing magnesium carbonate in lesser proportions is referred to as magnesium limestone or Dolomitic limestone. Pure dolomite is 54.3%  $CaCO_3$  and 45.7%  $MgCO_3$  or expressed another way, is composed of 30.4%  $CaO$ , 21.8% magnesia ( $MgO$ ), and 47.3%  $CO_3$ .

What that means to us and our customers: Our aglime contains both calcium and magnesium.

Stoneco Maybee		Stoneco Ottawa Lake	
Calcium:	18.61	Calcium:	21.46
Magnesium:	9.5	Magnesium:	12.15
TNP/CCE	82.26	TNP/CCE	96.41
No. 8:	94	No. 8:	99.2
No. 20:	73	No. 20:	74
No. 60:	43	No. 60:	43.8
No. 100:	35	No. 100:	32.9
Moisture %:	4.2	Moisture %:	2.81

**What is calcitic aglime?:** Aglime with little to no amounts of magnesium.

**Dolomitic or calcitic aglime?:** Dolomitic aglime is normally used on sandy soils. Sandy soils don't have any way to hold magnesium or calcium. Both are needed for plant growth and should be added regularly. The only way to tell which lime our customers need to use on clay soils is with a soil test. Clay soils with high magnesium levels perform poorly. They will develop more cracks and have a tighter structure. These soils don't need additional magnesium. Look for the magnesium base saturation (Mg BS) percentage on a soil test. The ideal Mg BS is 10%. Clay soils with Mg BS over 20% should get calcitic aglime.

# 2011 KBS LTER Main Site

Main Cropping System Experiment  
Treatment Key

- T1 Conventional corn soybean wheat conventional
- T2 No-till corn soybean wheat no-till
- T3 Reduced input corn soybean wheat
- T4 Biologically based organic corn soybean wheat
- T5 Poplar trees
- T6 Alfalfa
- T7 Early Successional Community
- T8 Mid Successional Community

Microplot key

- Fertilizer and competition microplot
- Tilled microplot (T)
- Plant competition microplot (3 density)
- Nematode disturbance study

Instrumentation key

- Minirhizotrons
- Trace gas flux chambers
- Low tens on suction lysimeters
- Weather station & weighing lysimeter
- Trace gas shed
- Wireless tower & sun photometer
- Aphid tower

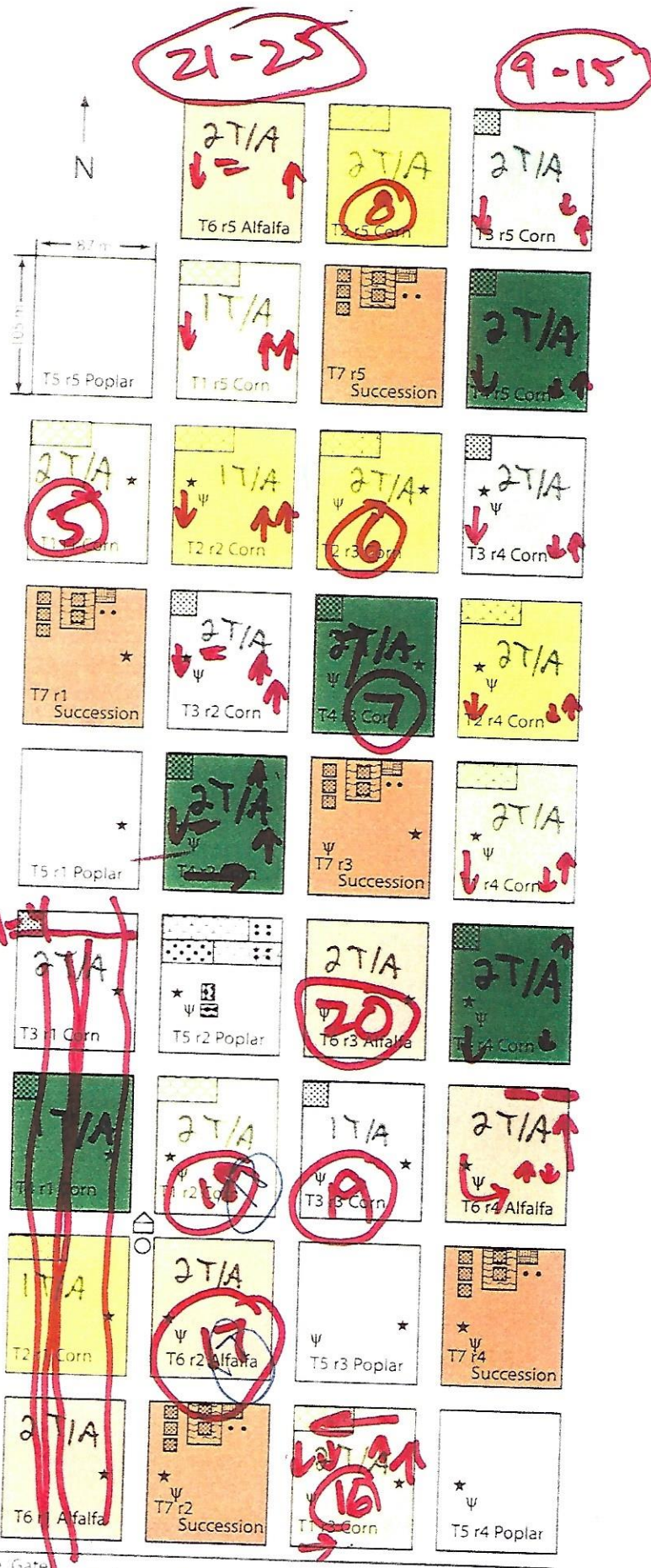
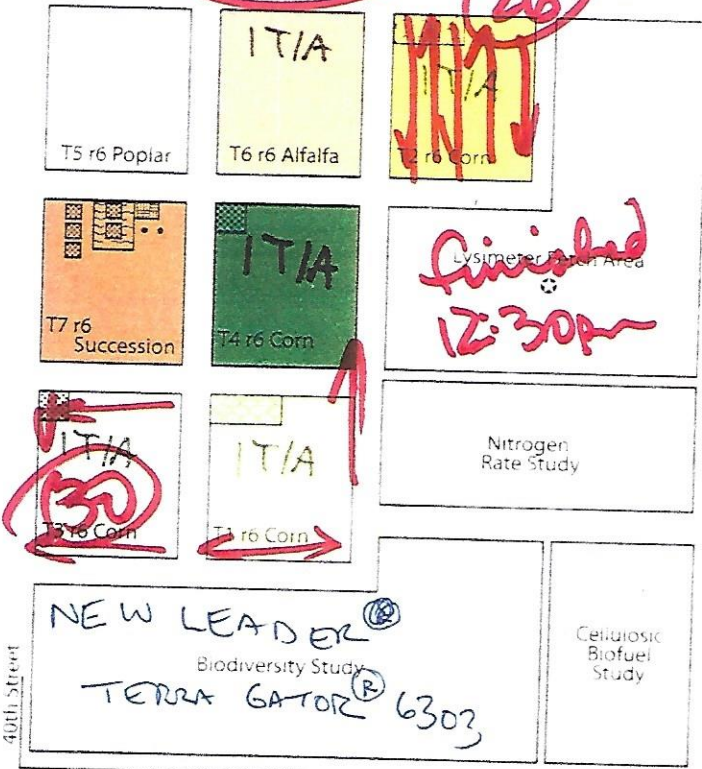
Storage & Shop

Field Lab

APRIL 9, 2012  
2pm  
WINDS 15 MPH avg (10 min) 16 MPH  
55°F; 28% R.H.  
SUNNY

**21-29**

GT Study



7AM  
4/11/12

3 mph NNW avg 3  
33F 75% RH  
SUNNY → mostly sunny

LOADS  
HIT  
200m off site  
2N avg 6  
50°F 41% RH  
12:30p