

Studies in Mineral Nutrition of Strawberry

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Nitrogen

- Effect on plant tissue and fruit quality.

Nitrogen test

Peter's 20-20-20

- Grower standard: 4.4 lb N every two weeks.
- 2X grower standard: 8.8 lb N
- 4x grower standard: 17.6 lb N
- 8x grower standard: 35.2 lb N

500 lbs Agriform pre-plant @ 18-6-13

Totals

- Grower standard 79.2 lbs
- 2x grower standard: 158.4 lbs
- 4x grower standard: 316.8 lbs
- 8x grower standard: 633.6 lbs

May 12 Hold

	Top grade
Grower standard	77.78
2x	80.56
4x	78.28
8x	87.50

June 12 Hold

	Top grade
Grower standard	61.67
2x	68.33
4x	55.51
8x	45.60

July 9 Hold

	Top grade
Grower standard	68.33
2x	64.58
4x	65.00
8x	68.33

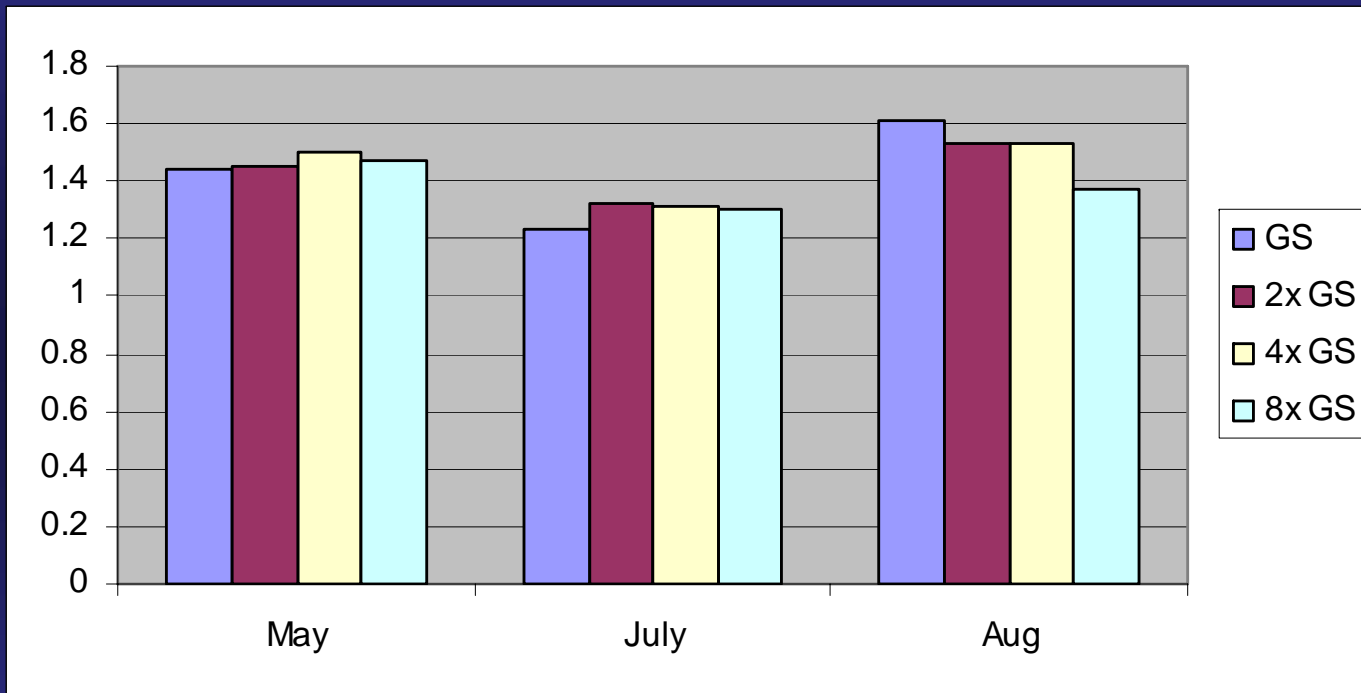
August 26, 2010

	Top grade
Grower standard	77.86
2x	66.67
4x	65.00
8x	78.08

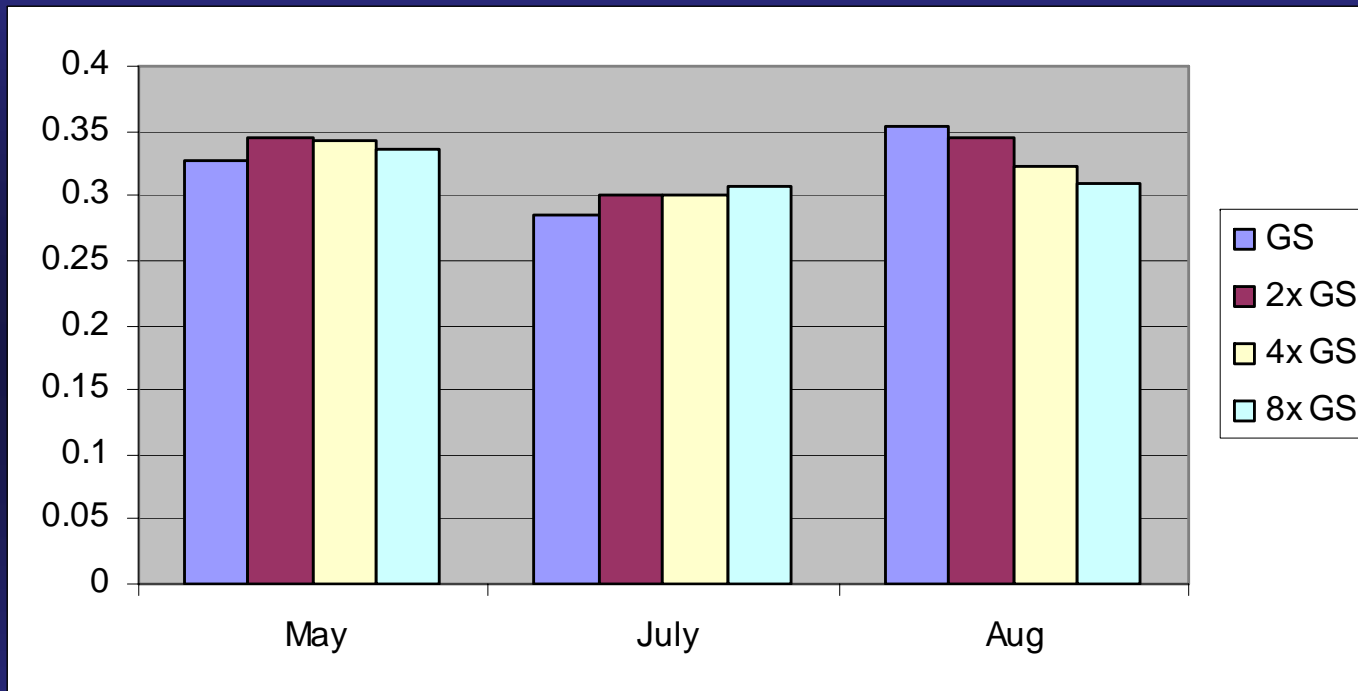
Yield Differences

- No yield differences.
- No differences in fruit firmness.

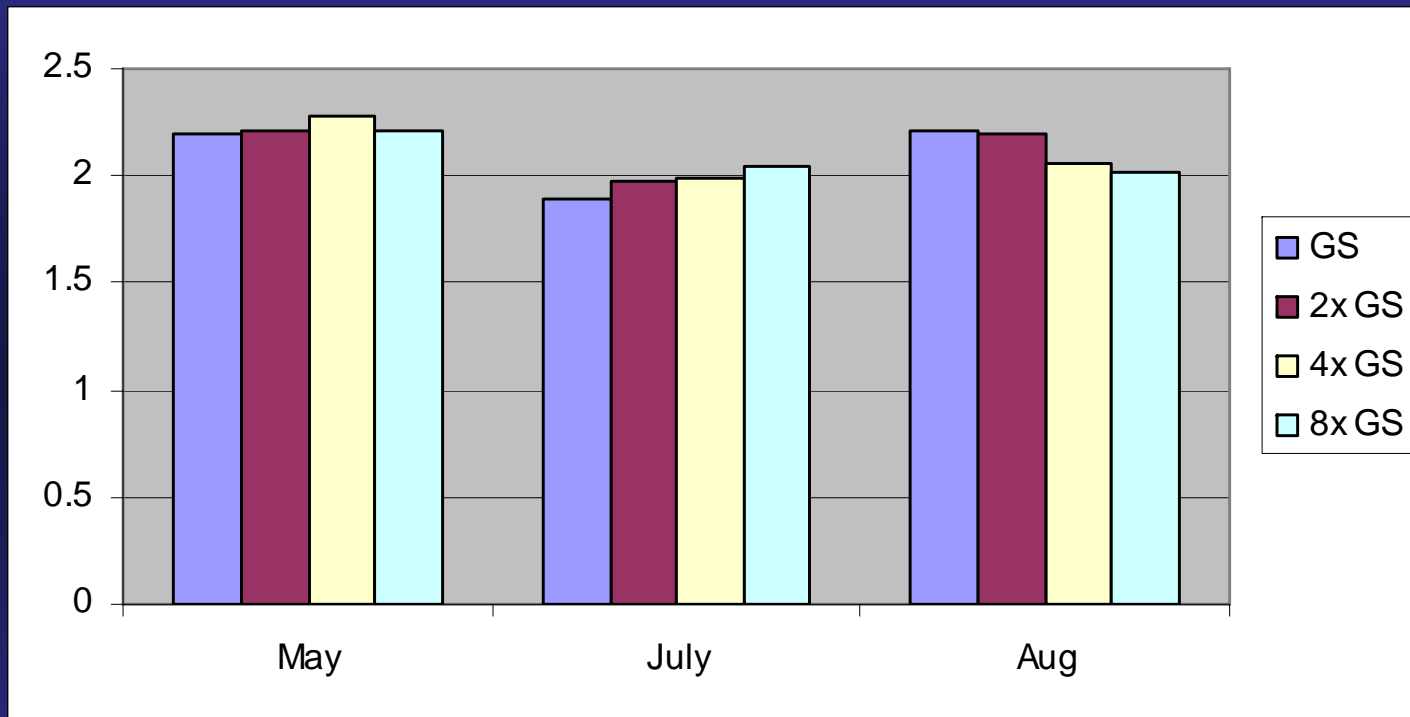
Fruit Nitrogen



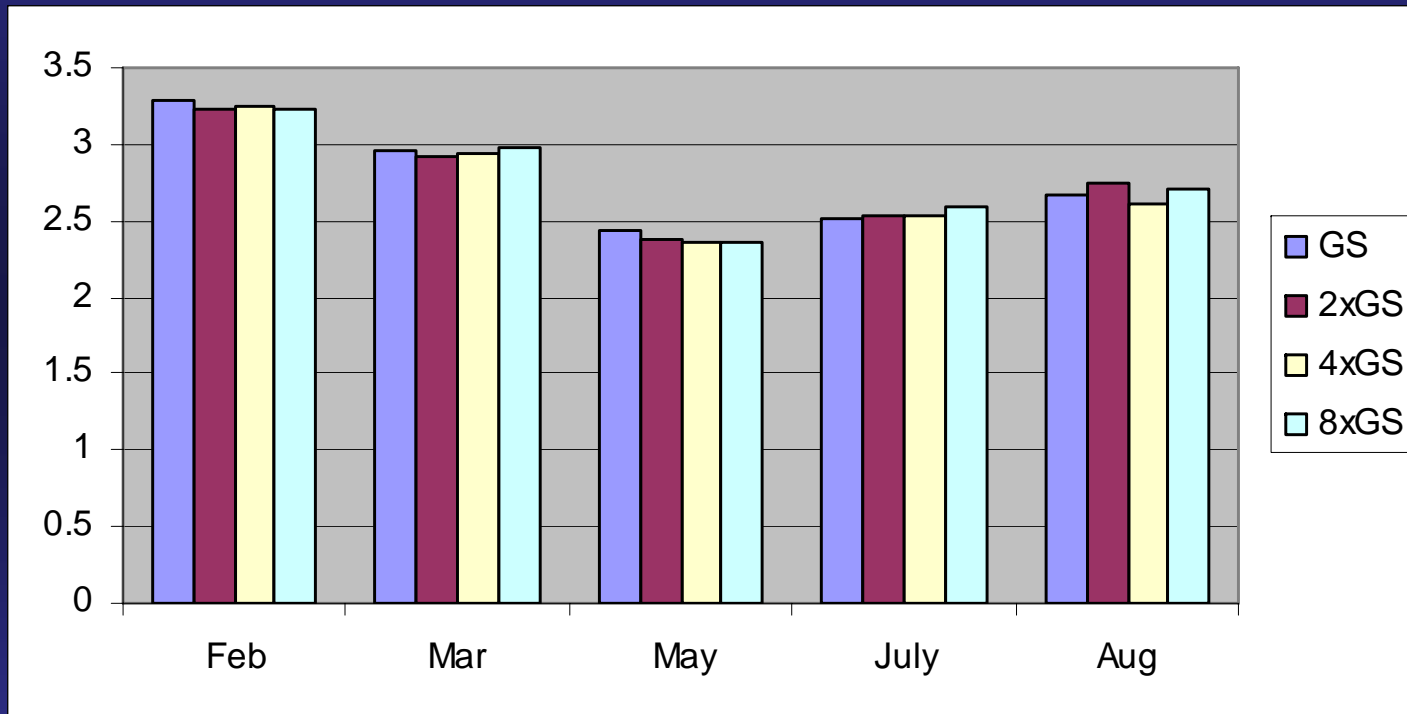
Fruit Phosphorous



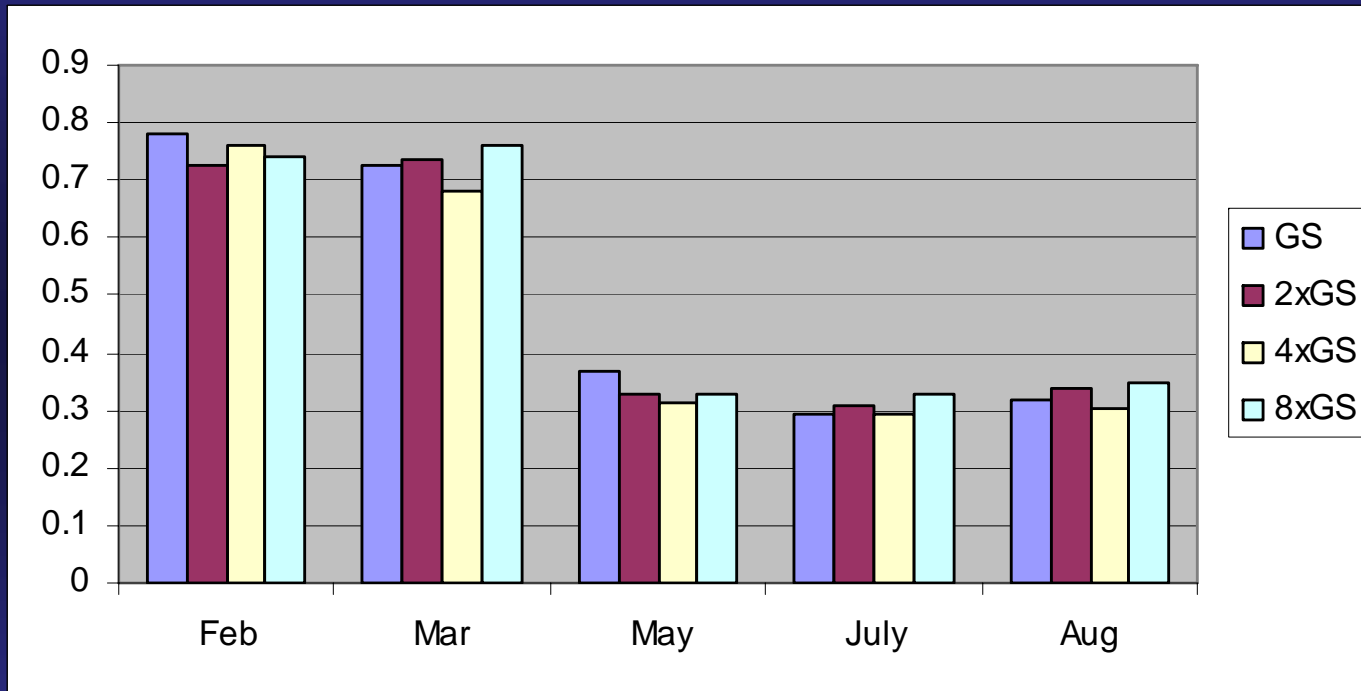
Fruit Potassium



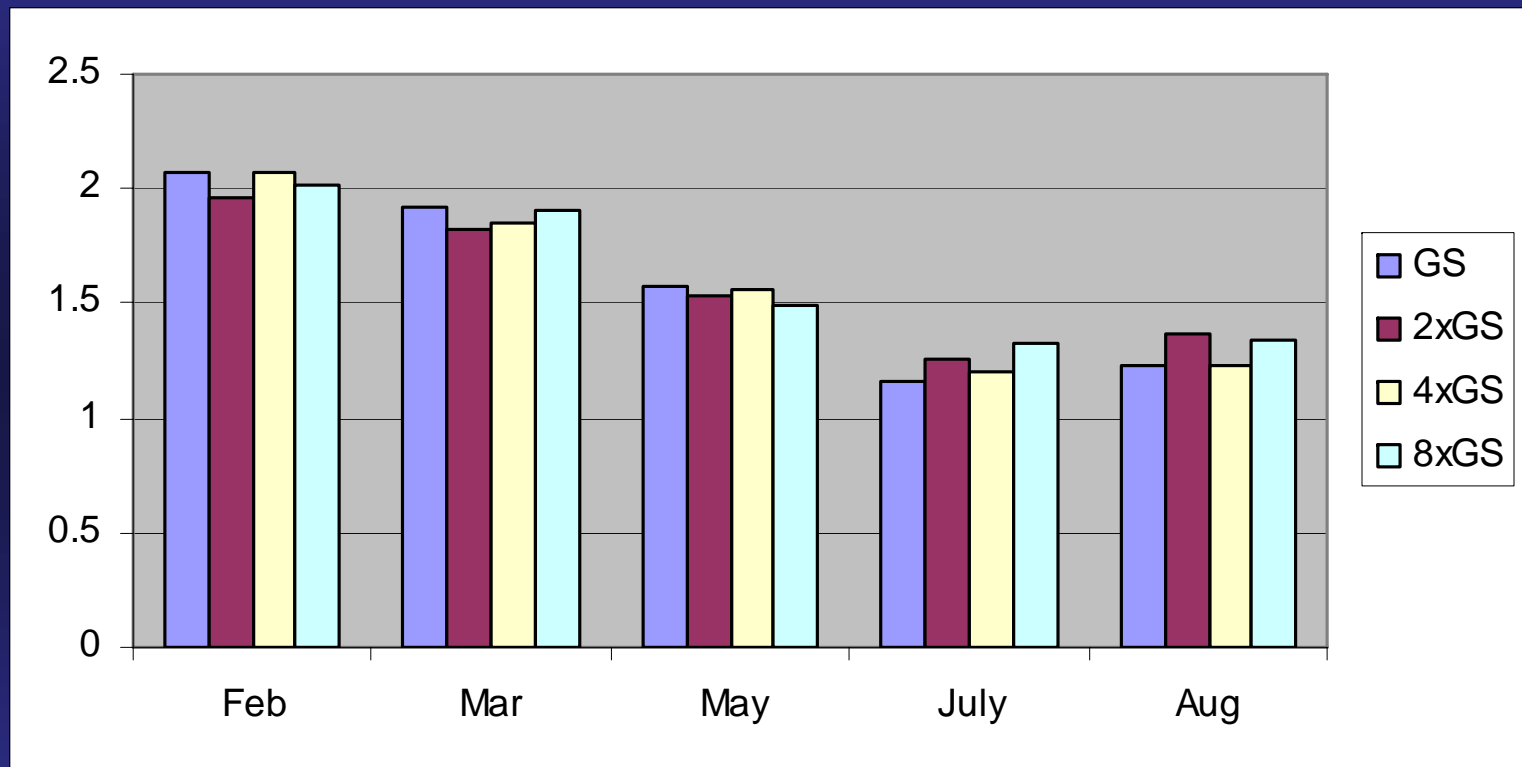
Blade Nitrogen



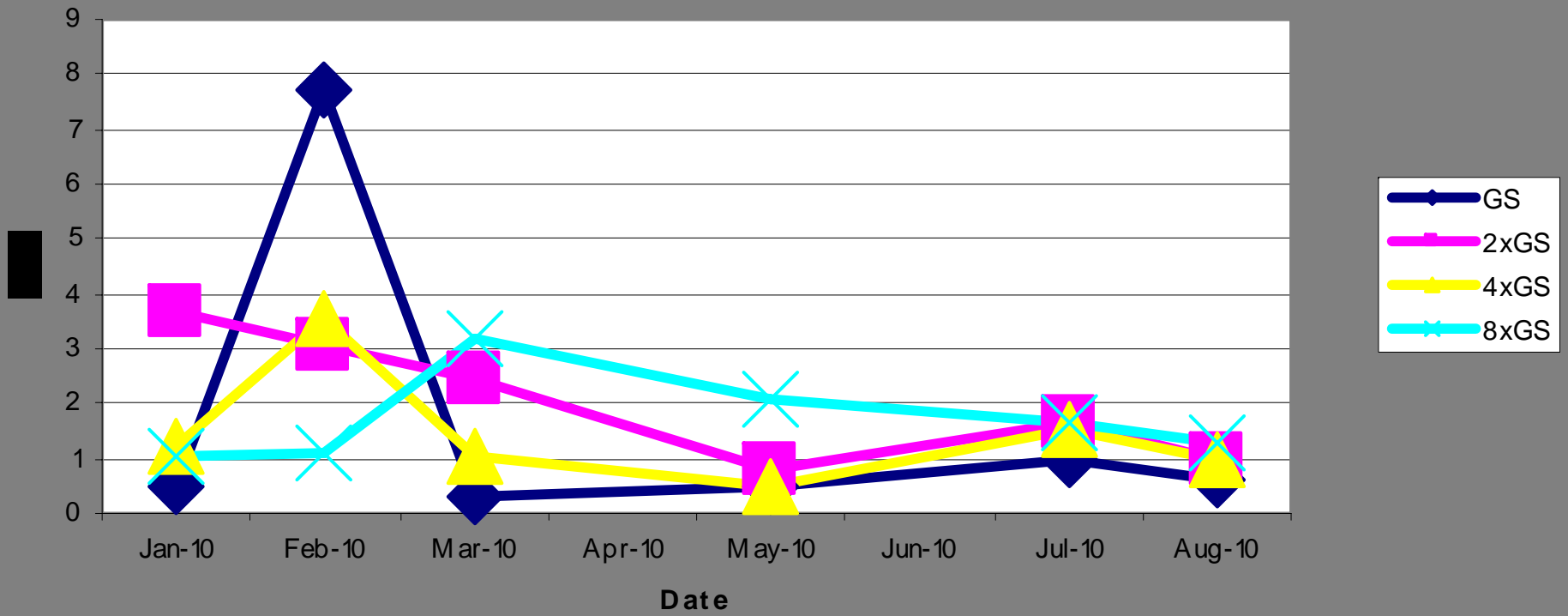
Blade Phosphorous



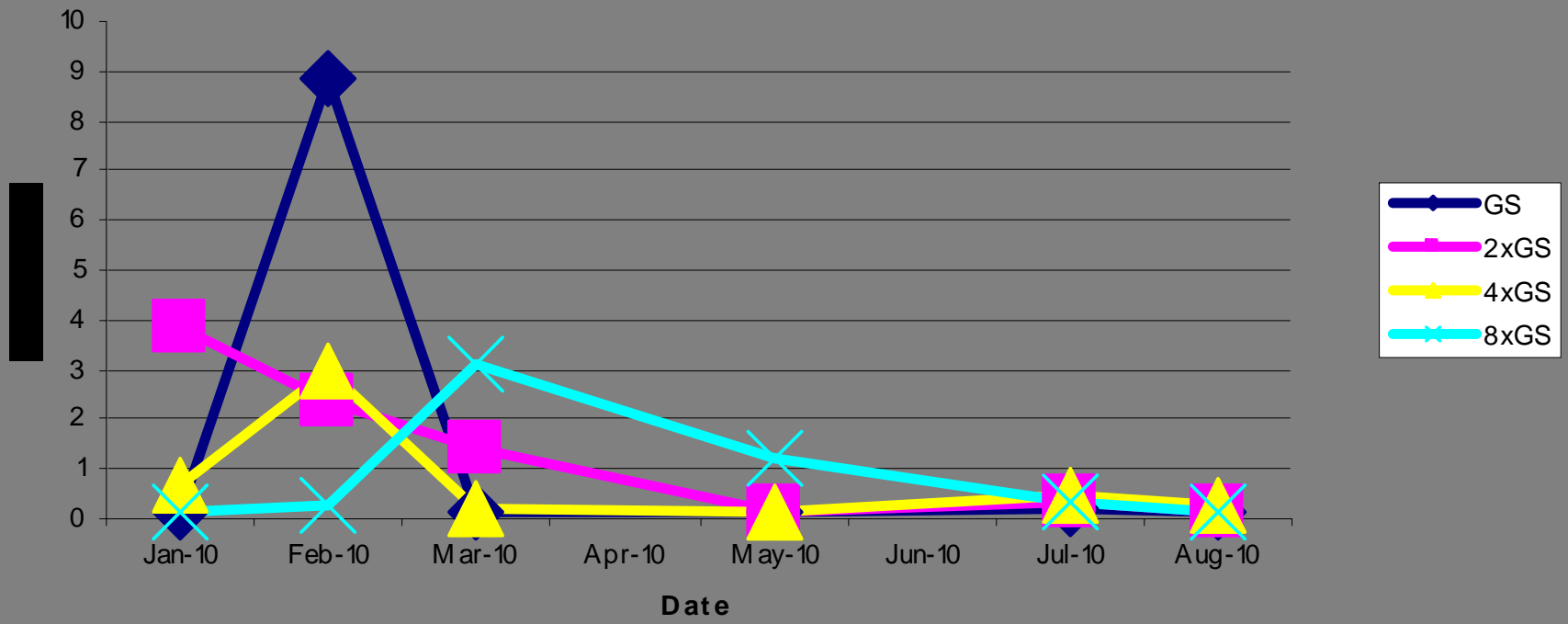
Blade Potassium



Nitrate-N in soil



NH4-N



Effect of foliar fertilizers

- Biozyme

N: 2 %

K: 6%

B: 0.1%

Iron: 0.6%

Manganese: 1.2%

Sulfur: 2.52%

Zn: 2.9%

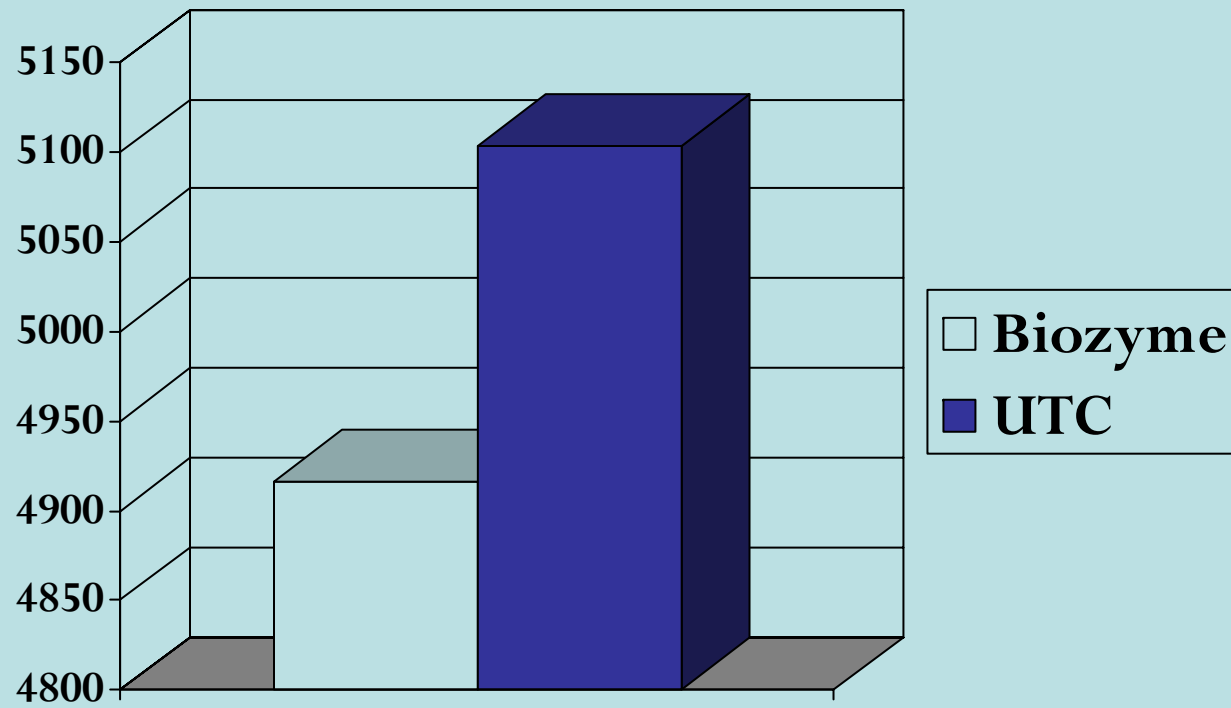
Biozyme 2007 Trial

- Applied at 0.5 qt per acre starting March 6, applying every three weeks until August 14
- Harvest 2x weekly, Brix taken 1x on June 20, tissue samples taken at end of study August 23.
- Placed in professionally managed strawberry field under normal fertility practiced.

Blade Tissue Concentrations (June 20)

Trt	N %	K %	B ppm	Fe	Mn	S	Zn
Biozyme	2.2	1.4	46.7	306.5	896.8	1977	20.5
No Biozyme	2.2	1.1	43.5	322.5	1004	1990	15.8*

Results



No difference in fruit Brix.

Pentakeep

- Pentakeep

N: 8%

P: 5%

K: 3%

Contains 5-aminolevulinic acid, a “photosynthesis promoter”

Application of Pentakeep

- Four applications starting at initial flowering and applied every seven days at the three dilutions (0.2L/53 gal/A, 0.2L/106gal/A, 0.2L/264gal/A compared to an untreated control.
- Results: No Yield Differences

