

Nutrient Management

The Value of Presidedress Soil Nitrate Testing (PSNT) Using the “quick test” method

Reduce Nitrogen
Application by 43%

Do it Because
it Makes Cents



Save up to \$100/ac per year

Research conducted by UC Davis in 1999 and 2000¹ resulted in the following findings:

- Seasonal Nitrogen application for lettuce can exceed **178 lb/ac**
- Head lettuce yield peaked with Nitrogen applications between **89 and 134 lb/ac**
- Using the strategy in **Table 1**, a grower can determine if sidedress is required and how much Nitrogen should be applied
- The strategy resulted in **no significant reduction in marketable yield or quality**

Table 1

- If soil nitrate < 20 mg/l, apply nitrate as follows

Soil Nitrate (mg/l)	Side Dress Application (lb/ac)
0-5	80
5-10	60
10-15	40
15-20	20

- No sidedressing required if quick test revealed soil nitrate ≥ 20 mg/l

After applying the PSNT strategy...

- **Total nitrogen applied decreased by 43%**
- **Total nitrogen applied in sidedressing decreased by 57%**

Consider the cost savings in the following scenario:

Crop	Acres	Crops/Year	Typical N Application (lb/ac)	Cost of N (\$/lb)
Lettuce	40	3	165	0.46

PSNT vs. No PSNT

NO PSNT

Total Nitrogen applied for 40 acres and 3 crops/year=
19,800 lb

Cost of Nitrogen applied for 40 acres and 3 crops/ year=
\$9,108

UTILIZING PSNT STRATEGY

Total Nitrogen applied for 40 acres and 3 crops/year=
8,514 lb

Cost of Nitrogen applied for 40 acres and 3 crops/year=
\$3,916

1. S.J Beschini and T.K. Hartz; Department of Vegetable Crops, University of California, Davis. Horticulture Science 37(7): 1061-1064. 2002.

For more information, contact your local natural Resource Conservation Service (NRCS) or Resource Conservation District (RCD)
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