



Head Lettuce Production - \$ - a current niche?

Lettuce is Profitable ... if...

Profit = Income - Expenses

Gross Sales Potential

200' bed, 3 Rows, 1' spacing - 500 marketable heads (600)

500 x \$2.00 = \$1,000

500 x \$2.50 = \$1,250

500 x \$3.00 = \$1,500

500 x \$3.50 = \$1,750

500 x \$4.00 = \$2,000



General Production Tips – Levers for Profit

Consistent Transplant Production

"Variety Selection is HUGE"

Minimize Bolting and Field Losses

Harvest - What We Can Sell

Planting Plans:
Heads in synergy with Mix



Common Challenges

Control Animals - Deer & Woodchuck!

Spring - The "Easy Season" - Fast Growth Weed Management and Potential for Bottom Rot - Rhizoctonia solani

Summer - Bolting

Fall - Downy Mildew

Aster Yellows < Leaf hoppers ... Frost & Cold Temps

Variety Selection

Annual Trials to Determine Best Options at Different Points in the Season... i.e. Romaine Trials 2x year

Summer - Focus on Batavian aka French Summer Crisp types

Magenta, Nevada, New Red Fire, Muir, Panisse, Starfighter Romaines: Arroyo, Coastal Star, Salvius, Sparx

In the Past at Brix: Aneunue, Bergam's Green, Green Star, Jericho, We'll trial some new types from Osborne in 2018...

> $\textbf{Fall}-\text{focus on }\dots\text{Downy Mildew resistance}$ Currently: Mirlo, Ruby Sky, Salvius, Starfighter

August 13, 2015 – Magenta (tp 6/23)



tremendous bolt resistance which provides a long harvest window. can be stretched out in the field if necessary.

Opportunity to demand with your variety selection

Are Pelleted Seeds Worth the Expense

 $\label{eq:total continuous} \begin{aligned} \textbf{Time and Cost Comparison-3 rows 1' spacing} \\ A \sim &200\text{'bed} = 600 \text{ transplants requiring } 7x98 \text{ or } 700 \text{ sds} \\ &\text{Cost of } 700 \text{ pelleted seeds} = $5.41, \end{aligned}$ Labor Cost to Seed > \$10.50 (pelleted) vs. \$14 (raw)

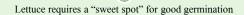
31.5 minutes vs. 42 minutes (using \$20/hr for our labor rate)
Comparison to transplant labor = ~1 hour per bed (\$20)
Comparison to cultivation labor = ~1.5 hours per bed total (\$30)
in to harvest labor < 5 min/harvest bin max w/ avg 12 heads per bins (<500 count per bed)... 3+hours to harvest a bed (\$60+)

Deet Harvest Labor = arother 3 hours nee hed (\$60+)

Cost of seed = Starfighter example 700 pelleted seeds = \$5.41 Raw - 5M at \$6.48 each vs. Pelleted - 5M at \$7.73 each

Bottom Line at Brix > Yes for a \$.88 cents investment per bed we can save \$3.50 in labor... especially key in high season
? WHERE TO FOCUS YOUR TIME AND ENERGY?

Propagation Tips – Heads in 98's or 128's



Important to limit high soil temperatures

Shade is best in summer... We've used shade (trees), shade cloth, tables, etc.

At brix birds are our typical #1 pest in summer germ season, occasionally rodents and of course woodchucks

Pop the seedlings and move to light

July 15, 2017 – Panisse – triangulated pattern



TP 6/03/2018

1st Cultivation

6/23 - handweed

6/29 - quick handweed to allow melons to run after lettuce harvest... (see picture later in presentation)



Lettuce Fertility in Focus

Moved away from sidedressing lettuce beds... instead we focus on "Super Charging" the Bed before planting

Full Spectrum Minerals ... A to Z - at Brix > Ca + P + N + Min Mix

Sufficient Nitrogen for fast growth

Copper, Iron, Magnesium & Phosphorous for
Energy and Maximum Photosynthesis

Calcium & Boron may prevent tip burn

Potassium and Zinc play a role in Water Use Efficiency
Sulfur for protein development
Molybdenum for Nitrate Utilization

Caution and careful with Manganese (fruiting energy) for greens



Fertility is the key to "signaling" plants to grow roots quickly... and having the necessary energy to do so...

In the springtime, pay attention to available Phosphorous.

August 9, 2016 – L mix 8 D



Vegetative vs. Reproductive Growth

Carey Reams - "Male vs Female" Energy

3 Primary Growth Elements

Calcium

Nitrate Nitrogen Potassium

In practice... at Brix Bounty we include a focus on Boron to help Calcium mobility (xylem), in 2017 we started using Calcium Nitrate in our fertility programs, especially in the springtime and for leaf crops... currently include $\sim 100-150 \, \text{H}$ Calcium Nitrate per acre (15.5% N) at planting = $\sim 15.5 - 23.25 \, \text{H}$ N per acre











