

Breaking down the cost and benefits of Phuong's practice changes

The table below highlights the various changes Phuong made and their estimated impact on production. The % improvement is his "estimate" of the impact for each change made.

Phuong's changes and benefits:

- In the yellow lines are the practices that can be linked to yield/quality benefits
- In the grey lines are associated costs and savings that are part of these practices
- The change in profitability (\$23,620) comes about from significant increase in saleable fruit (67%) with a reduction in cost!
- Phuong's labour has been calculated at \$50 per hour – variances to this will modify the result

| REVENUE INCREASE of \$21,546 (@ \$1.80 Kg) achieved by the following New Investment In Farm Management for one year in one block of greenhouses | | | | | |
|---|---|-------------------------|-------------------------------------|----------------------------|-----------------|
| Action | % yield impr | Lbr hrs (\$50.00/hr) | Costs +/- | Income +/- at \$1.80/Kg | Net Gain |
| Increase in Essential Crop Monitoring: Pests, diseases and nutrition | | | | | |
| Crop monitoring – labour | | 20 | \$1,000 | | -\$1,000 |
| 1) Climate control: foliar diseases due to high humidity, heat damage, vegetative plants (light issues - can be excess nitrogen), cold set, fruit cracking | | | | | |
| Closing and opening ends and sides to ventilate | Minor issues - no practice change in recent years | | | | |
| Applying chalk to reduce heat burn | Minor issues - no practice change in recent years | | | | |
| 2a) Soil and root care: soil diseases, soil health - physical, chemical (locked up nutrients, salinity & pH), biological, irrigation issues | | | | | |
| Soil fumigants – chemical only | 6% | | \$1,200 | \$1,944 | \$744 |
| Application - labour | - | 2 | \$100 | | -\$100 |
| Ripping for drainage | 3% | | \$80 | \$972 | \$892 |
| Overhead sprinklers – installation cost | Capital Cost – not annual | | \$800 | \$800 | |
| Overhead leaching of soil salts | 4% | | | \$1,296 | \$1,296 |
| Overhead leaching of soil salts - labour | - | 1 | \$50 | | -\$50 |
| Compost added | 10% | | \$800 | \$3,240 | \$2,440 |
| Spreading compost - labour | - | 3 | \$150 | | -\$150 |
| 2b.) Improved Control of irrigation and soil moisture | | | | | |
| Monitoring and fine tuning irrigation | 4% | 3 | | \$1,296 | \$1,296 |
| Monitoring and fine tuning irrigation-labour | - | 3 | \$150 | | -\$150 |
| Reduction in fungicide use (reduced plant stress) | 4% | | -\$100 | \$1,296 | \$1,396 |
| Reduced labour (fungicide) | - | -5 | -\$250 | | \$250 |
| Water savings 1000kl (has own bore) | - | -1 | -\$50 | | \$50 |
| 3) Plant nutrition – timing and correctness: To overcome deficiencies and excesses affecting plant vigor, flowering and setting – soil and foliar application | | | | | |
| Leaf Testing | | | -\$75 | | -\$75 |
| General fertilizers (accuracy helped plants and costs) | 7% | | -\$7,000 | \$2,268 | \$9,268 |
| Calcium (much more balanced – less required) | 5% | | -\$250 | \$1,620 | \$1,870 |
| 4) Farm hygiene and bio-security: To prevent diseases entering your farm/spreading in your crop via weeds, people, equipment, seedlings etc.) | | | | | |
| Weed control -herbicide | 4% | | | \$1,296 | \$0 |
| Weed control -spray time | | 2.5 | \$125 | | -\$125 |
| Remove TSWV infected plants | 6% | | | \$1,944 | \$1,944 |
| Remove TSWV infected plants – labour | | 2 | \$100 | | \$100 |
| 5) Control of foliar pests and insect transmitted diseases: Insects, mites, viruses (without improvements losses would have increased by about 32% due to increased pesticide resistance in the region) | | | | | |
| Shade cloth to partially limit pest entry | 3% | | \$100 | \$972 | \$872 |
| Labour to install cloth | | 5 | \$250 | | -\$250 |
| Spray coverage improvement – droplet size, pressure | 5% | | | \$1,620 | \$1,620 |
| Chemical rotation program to limit resistance | 6% | | | \$1,944 | \$1,944 |
| Reduced Plant Density – saving on seedlings | | | -\$338 | | \$338 |
| TOTALS | 67% | 36 | <b style="color: red;">-\$3,658 | \$21,708 | \$23,620 |