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Strategies to improve quality and color of 'Tango' fruit

Funding



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Strategies to improve quality and color of 'Tango' fruit

Goal

To evaluate combined effect of preharvest nutritional treatments and postharvest ethylene degreening treatment on fruit quality of 'Tango' fruit


- 'Tango' is a seedless mandarin, but achieving marketable peel color is a concern for marketability
- Preharvest mineral nutrition treatments seem promising in improving fruit quality
- Ethylene degreening treatment can enhance post harvest color development

Strategies to improve quality and color of 'Tango' fruit

10-year old 'Tango' on standard fertilization

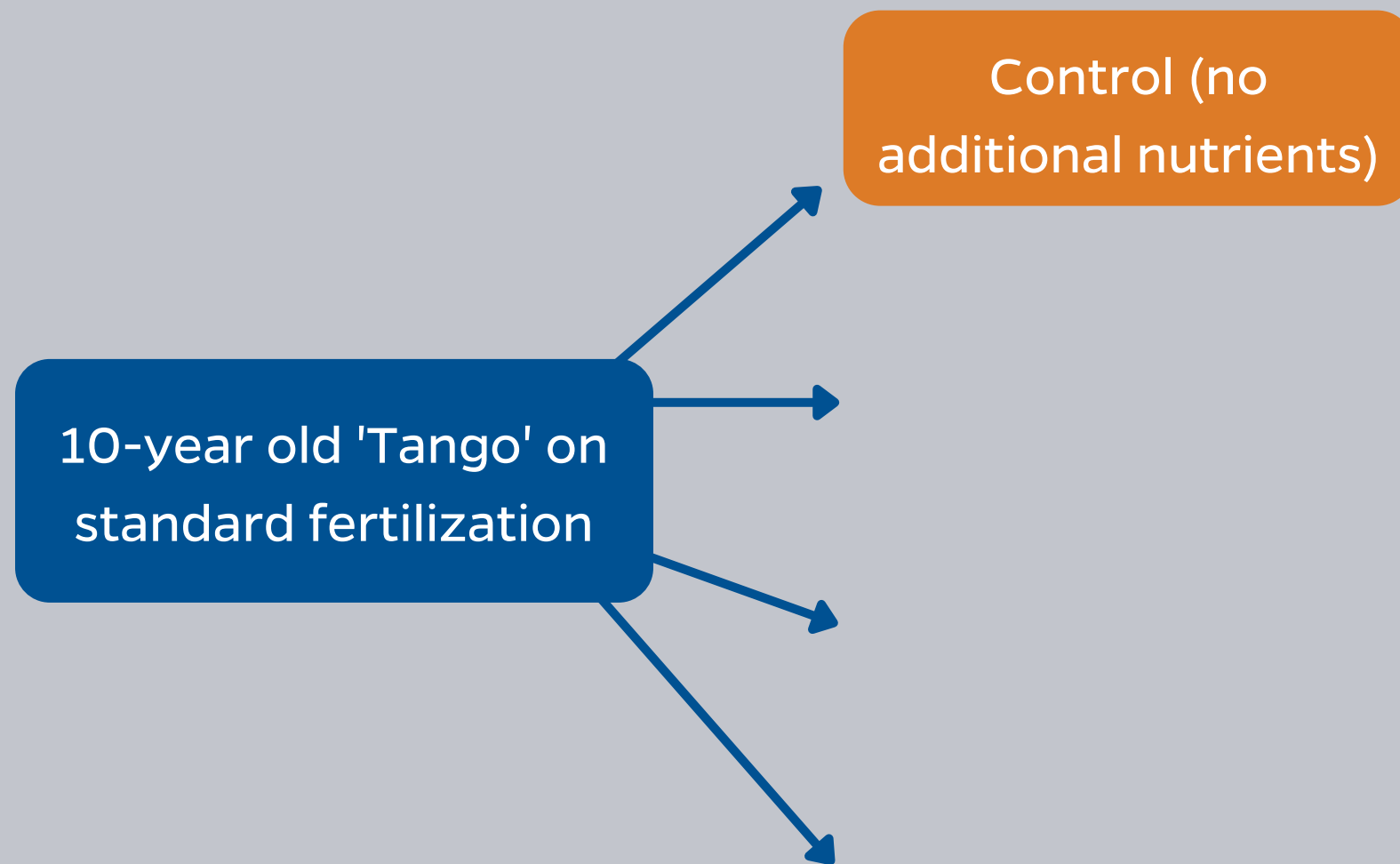
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10-year old 'Tango' on standard fertilization

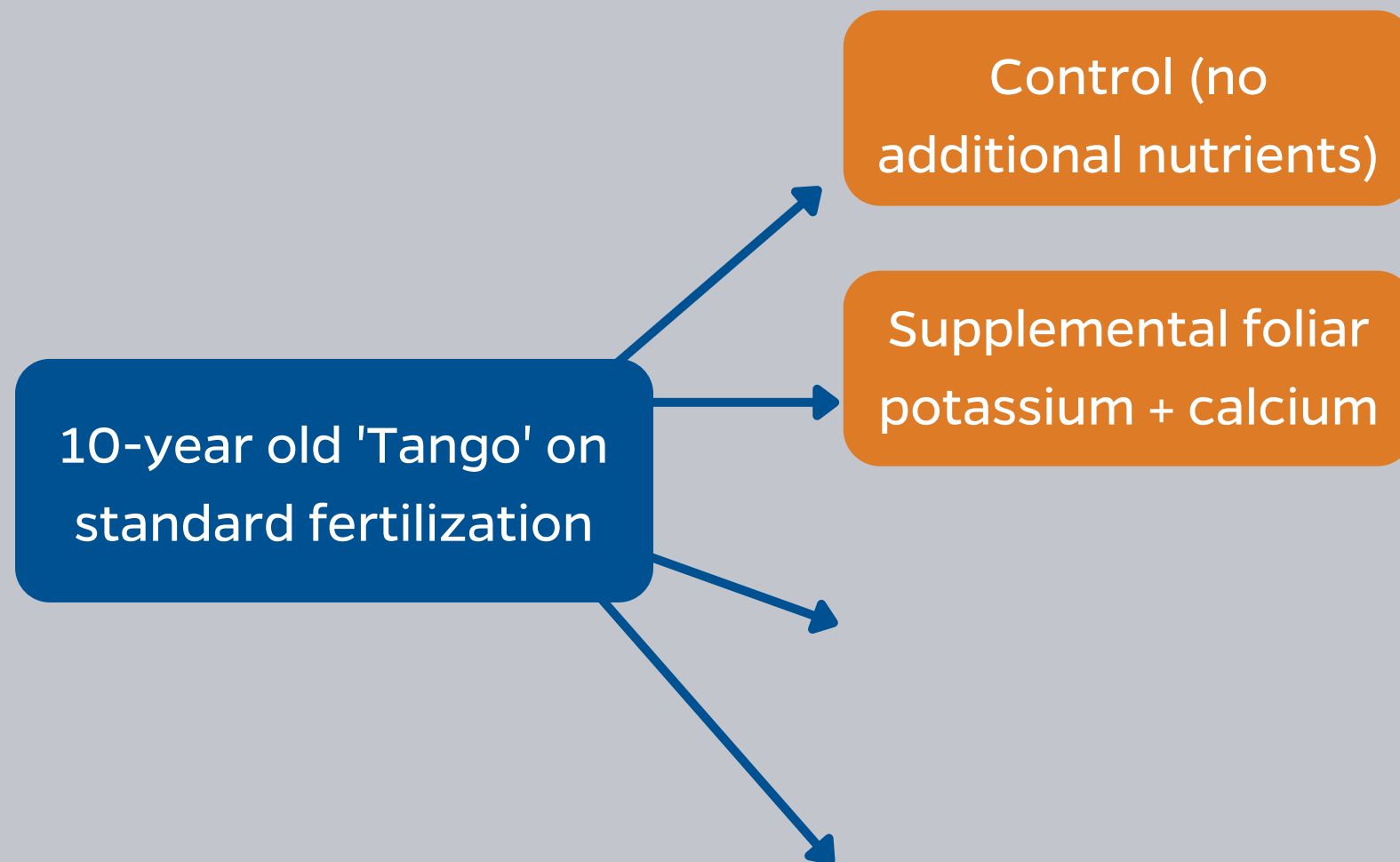


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graph LR; A[10-year old 'Tango' on standard fertilization] --> B[ ]; A --> C[ ]; A --> D[ ]; A --> E[ ]
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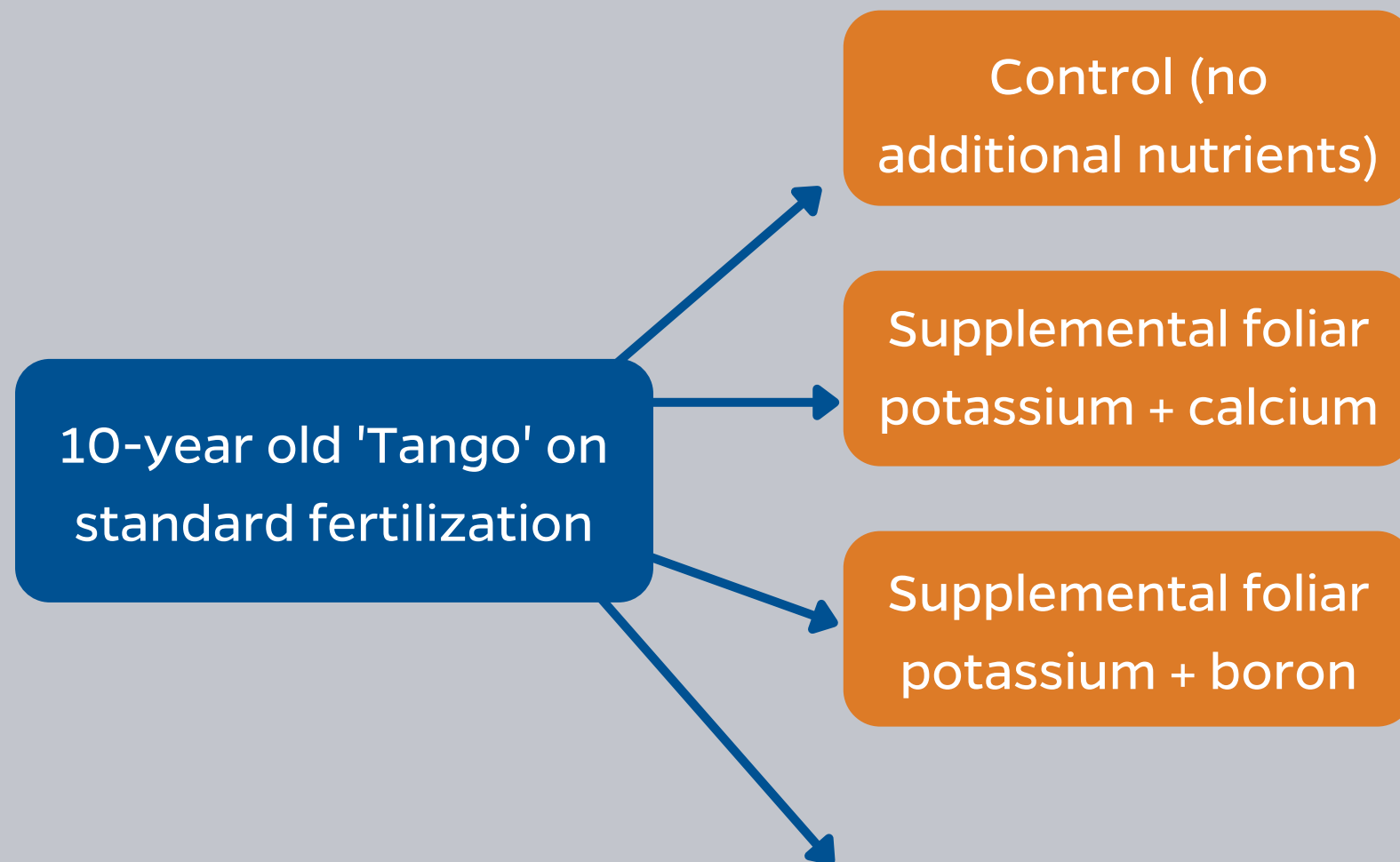
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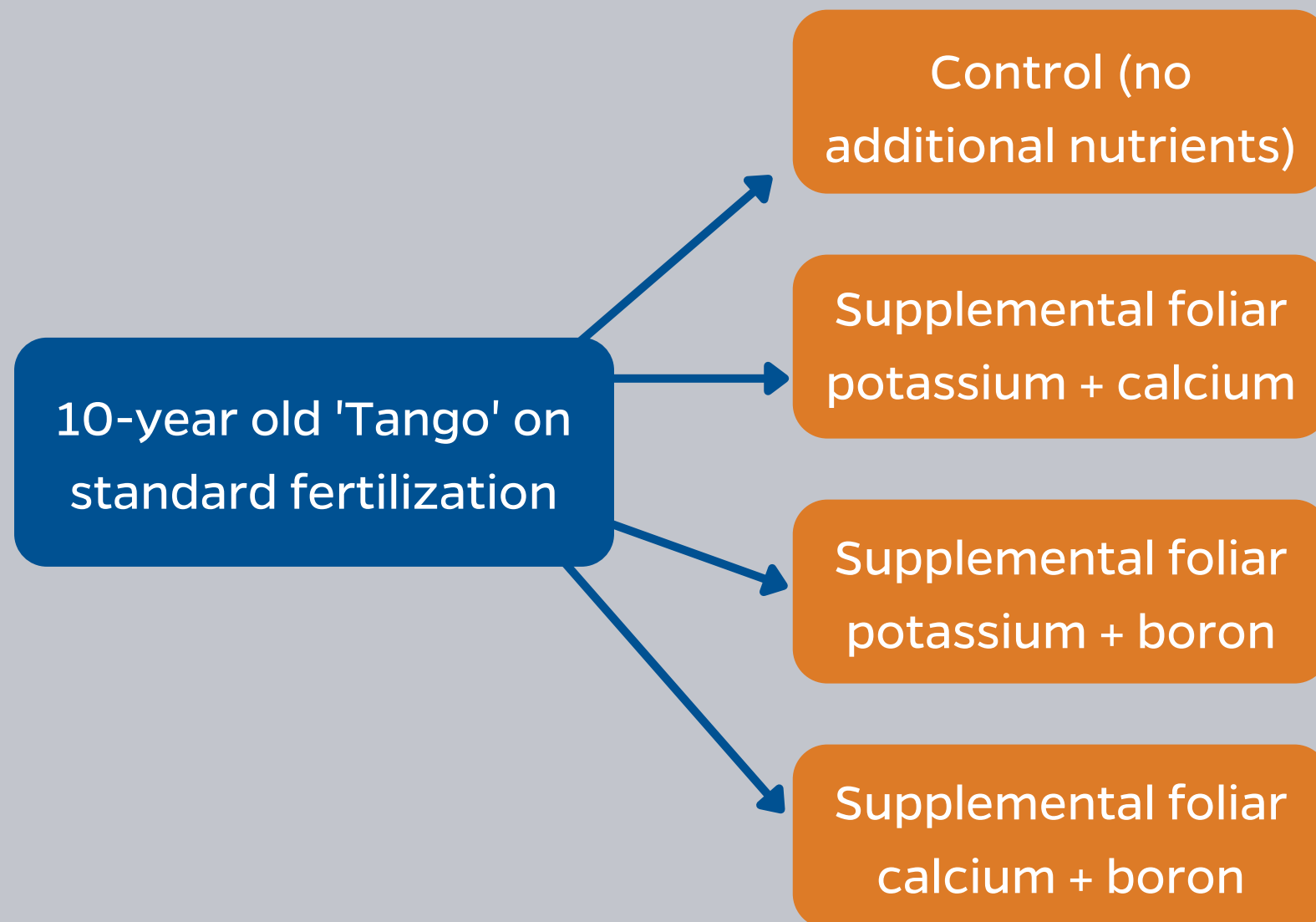
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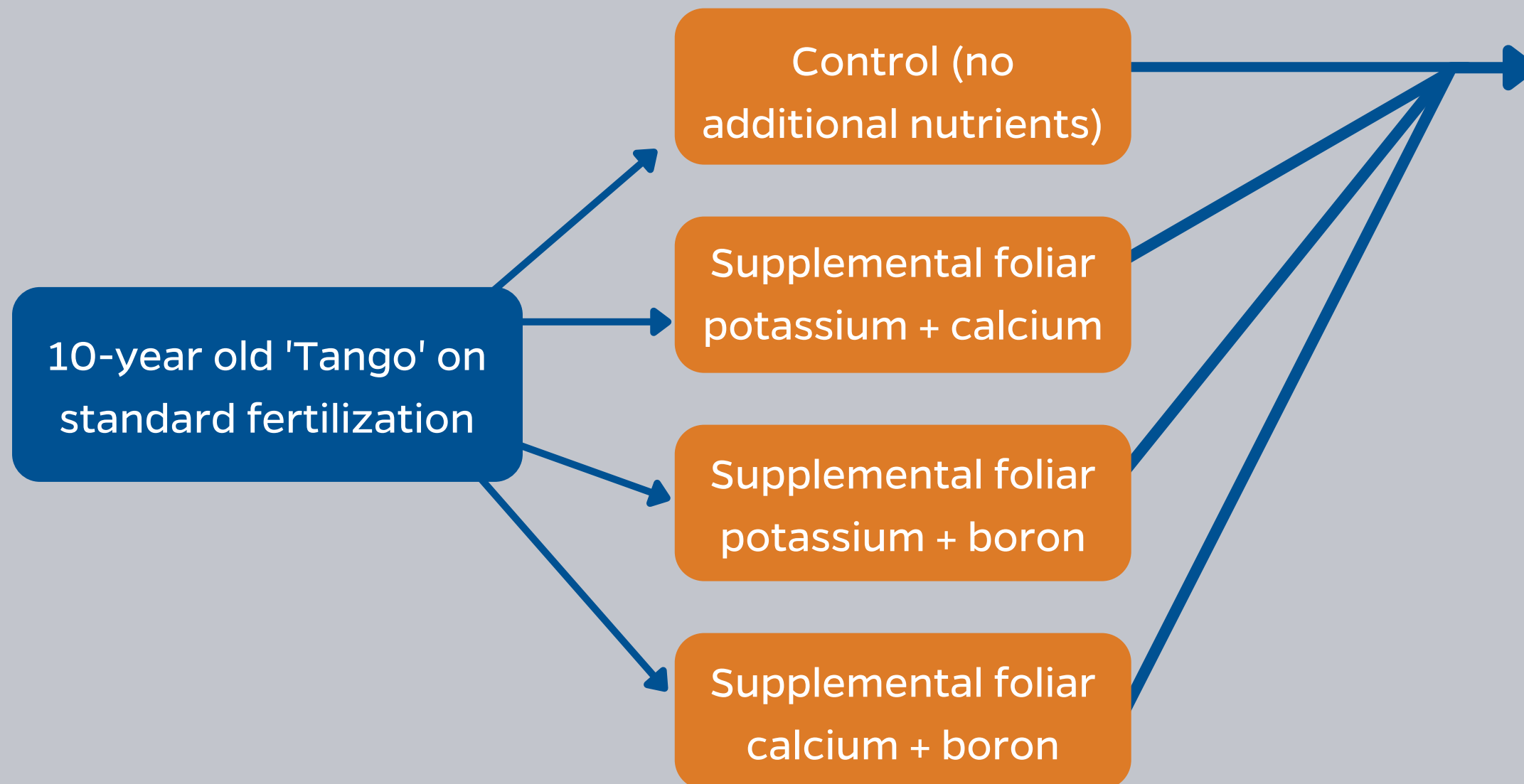
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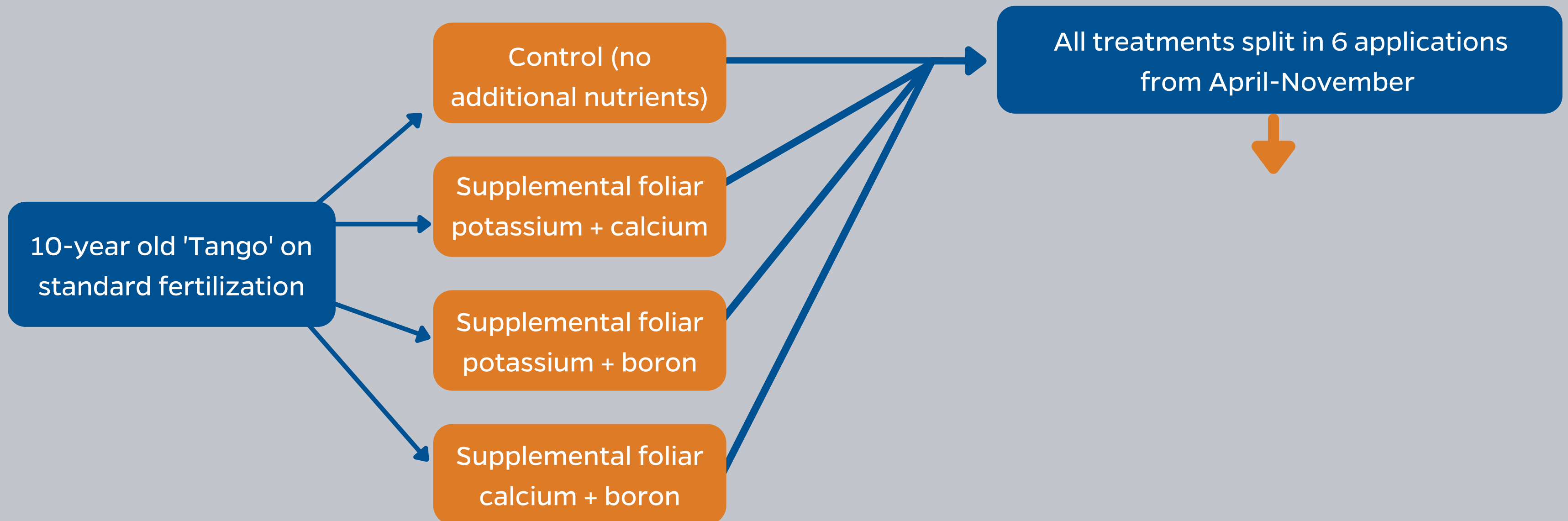
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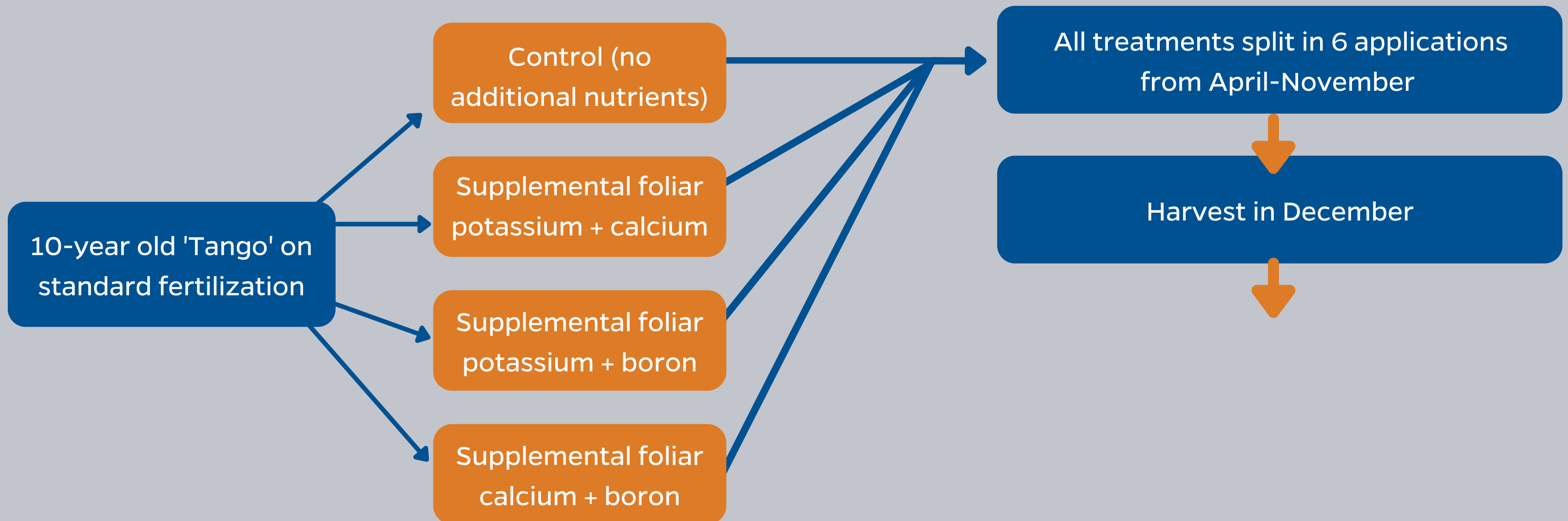
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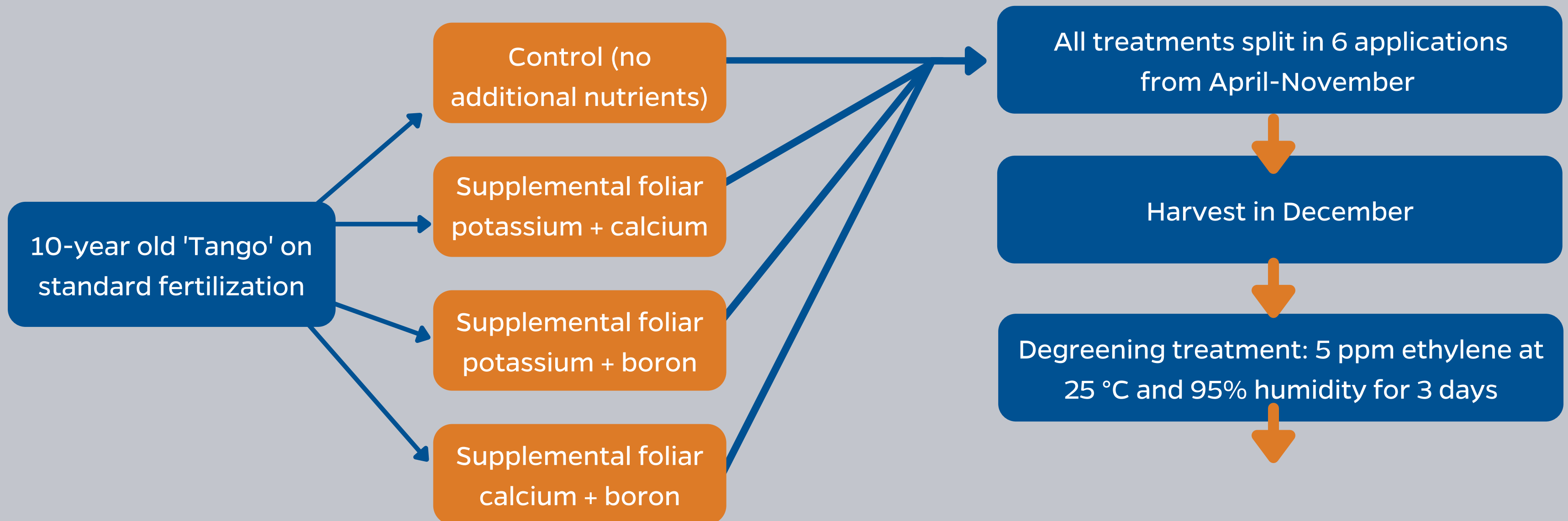
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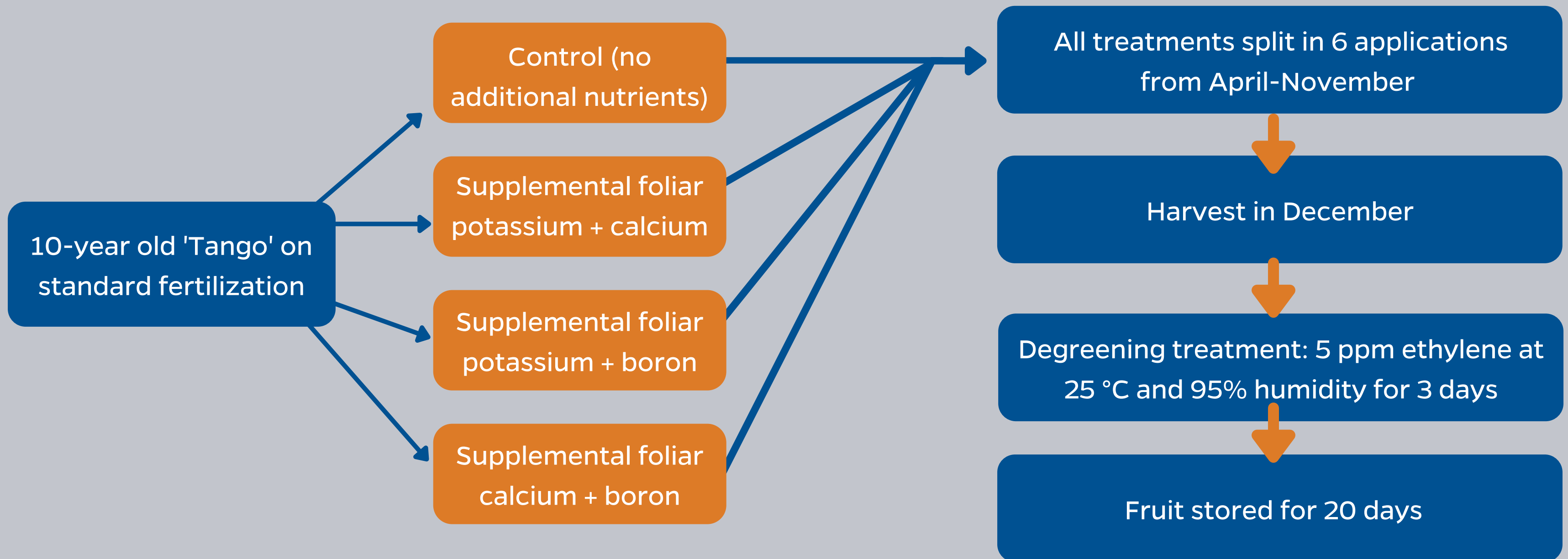
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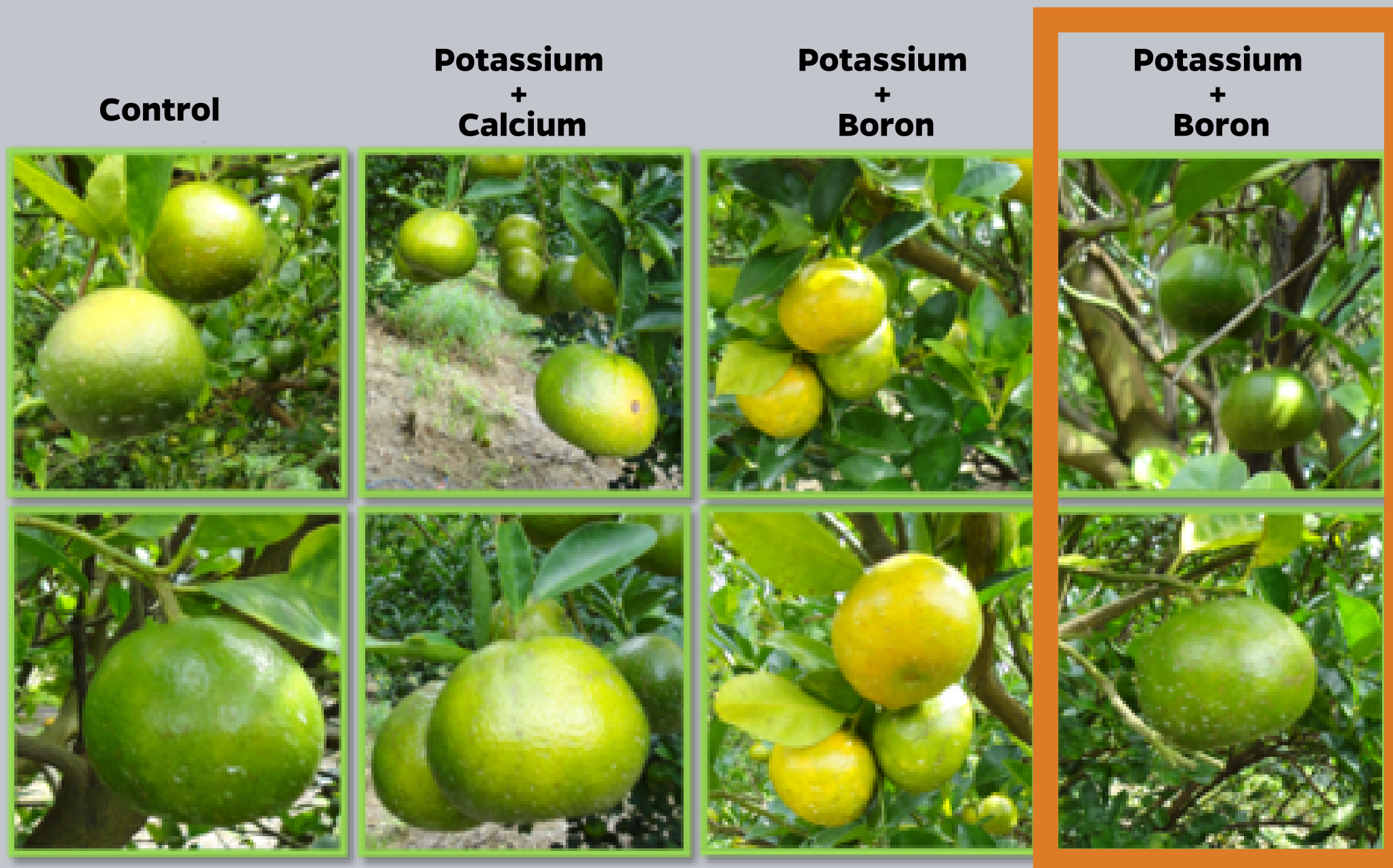
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Potassium (K) + Boron (B) resulted in larger, symmetrical fruit

Strategies to improve quality and color of 'Tango' fruit

Potassium (K) + Boron (B) treatment had highest fruit yield with good color development and fewer small and lopsided fruit at harvest



Control (unsprayed)



Potassium (K)+Boron (B)



Potassium (K)+ Calcium (Ca)



Calcium (Ca)+boron(B)

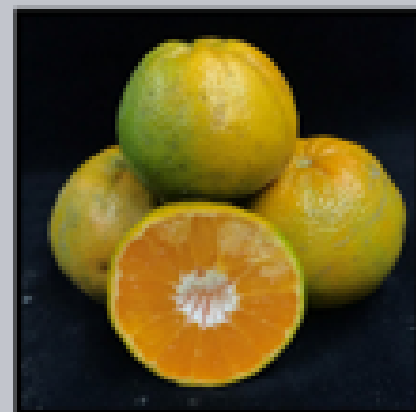
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NON-DEGREENED

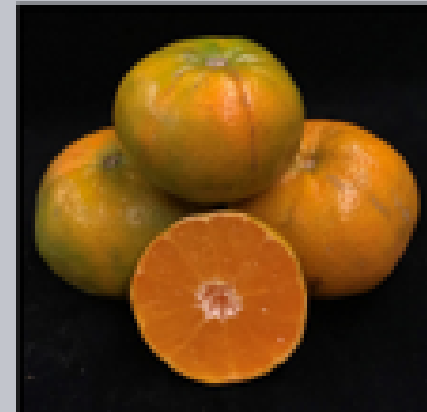
FRUIT



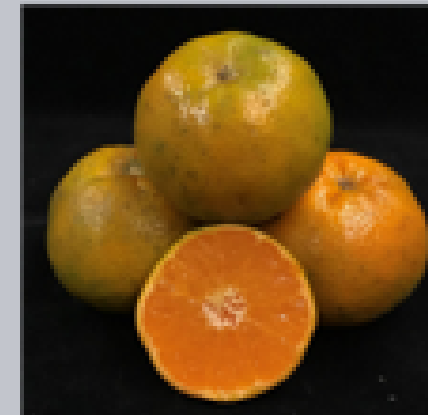
Control
(grower standard)



**Potassium (K) +
Calcium Ca)**



**Potassium (K) +
Boron (B)**



**Calcium Ca) +
Boron (B)**

DEGREENED

FRUIT



Control
(grower standard)



**Potassium (K) +
Calcium Ca)**



**Potassium (K) +
Boron (B)**



**Calcium Ca) +
Boron (B)**

After degreening:

- Potassium (K) + Boron (B) treated fruit had better peel color
- Higher fruit firmness than control
- Treatments with Calcium (Ca) did not develop intense orange color

Strategies to improve quality and color of 'Tango' fruit

Summary

- Potassium (K) + Boron (B) treatment is promising to improve yield, size and color of 'Tango'
- Degreening is a viable option for Tango
- Degreened fruit could be stored for up to 20 days

