



Controlled Release Nutrition for Protected Vegetable Crops



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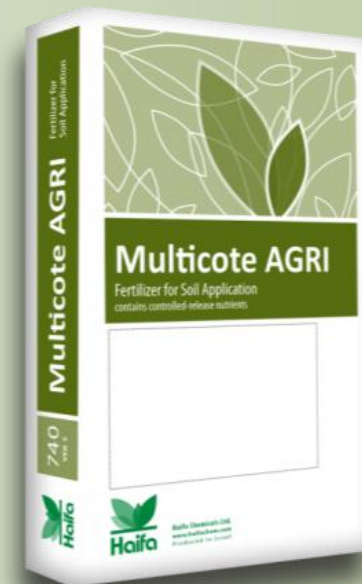
- ❖ Benefits
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Multicote Agri



- Multicote Agri at 60-70% of conventional application rates results in:
 - Better nutrient use efficiency
 - Higher yields
 - Improved quality
- The overall result is increase in grower's net profit, with additional benefit of minimized environmental impacts.



Multicote Agri for Melons in Tunnels



Melons cv Figaro in plastic tunnels,
CEHM Experiment Station, France (2001)





Multicote Agri for Melons in Tunnels - Treatments

Control – grower's practice

Base-dressing + 2 side-dressing applications by Fertigation

| N | P ₂ O ₂ | K ₂ O | MgO | |
|-----|-------------------------------|------------------|-----|-------|
| 150 | 168 | 250 | 110 | kg/ha |

Multicote Agri

300 kg/ha Multicote Agri 20-15-10, applied as base-dressing

| N | P ₂ O ₂ | K ₂ O | MgO | |
|-----|-------------------------------|------------------|-----|--------------|
| 60 | 45 | 30 | - | kg/ha |
| 40% | 27% | 12% | - | % of control |

Multicote Agri for Melons in Tunnels - Results

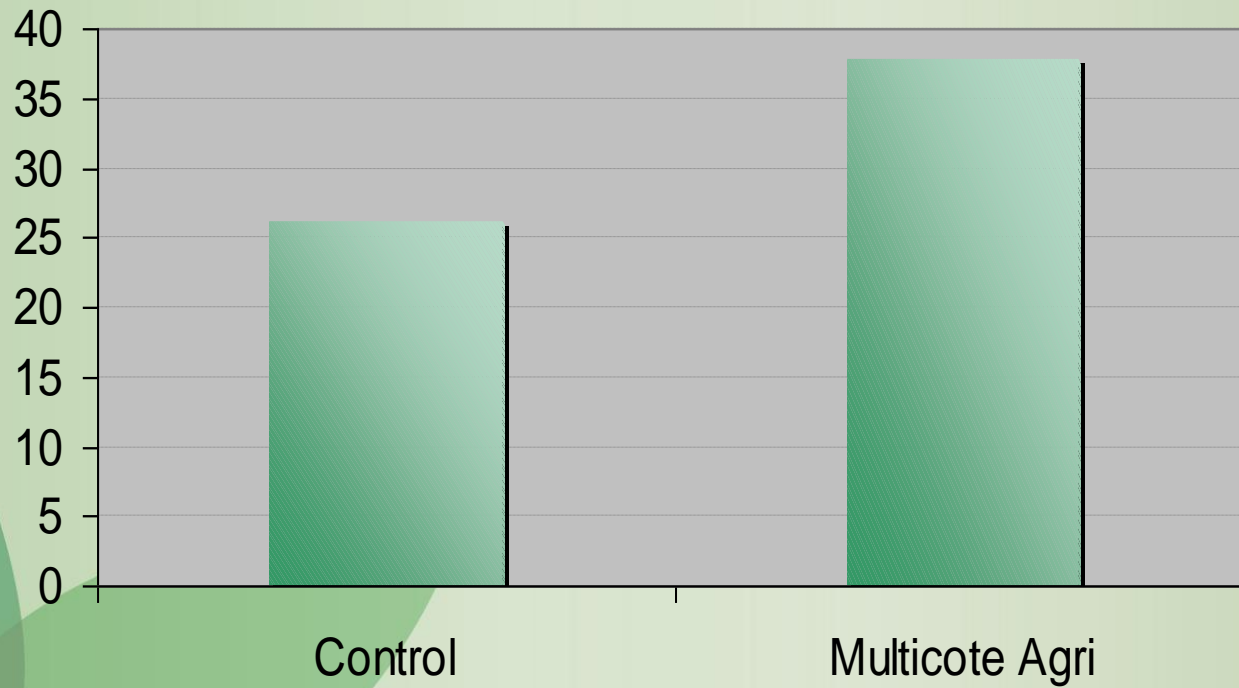


| | Total yield (MT/ha) | Fruits per sq. meter | Mean fruit weight (g) |
|-----------------------|---------------------|----------------------|-----------------------|
| Grower's practice | 26.1 | 3.95 | 660 |
| Multicote Agri | 37.8 | 5.63 | 672 |



Multicote Agri for Melons in Tunnels - Yields

Total yield (ton/ha)



Multicote Agri for Melons in Tunnels - Conclusions



The benefits of Multicote Agri:

- ✔ Reduced application rates
- ✔ More fruits per plant
- ✔ Larger fruits
- ✔ Higher yields



Multicote Agri for Greenhouse Tomatoes



Greenhouse-grown tomatoes *cv azera-189*, HaBesor Farm, Israel (2005)



Multicote Agri for Greenhouse Tomatoes - Treatments



| Treatment | Fertilizer | kg/ha | | | Application |
|------------------------------------|--|-------|-------------------------------|------------------|--|
| | | N | P ₂ O ₅ | K ₂ O | |
| Control: Grower's practice | Liquid | 660 | 240 | 840 | Nutrition at 2-days intervals |
| Multicote [®] Agri 50% | Multicote Agri 16-8-26 (90-0-100% coated) | 264 | 132 | 429 | Base-dressing, irrigation schedule same as in Grower's practice |
| Multicote [®] Agri 65% | Longevity: 6 months | 432 | 216 | 702 | |

Multicote Agri for Greenhouse Tomatoes - Results

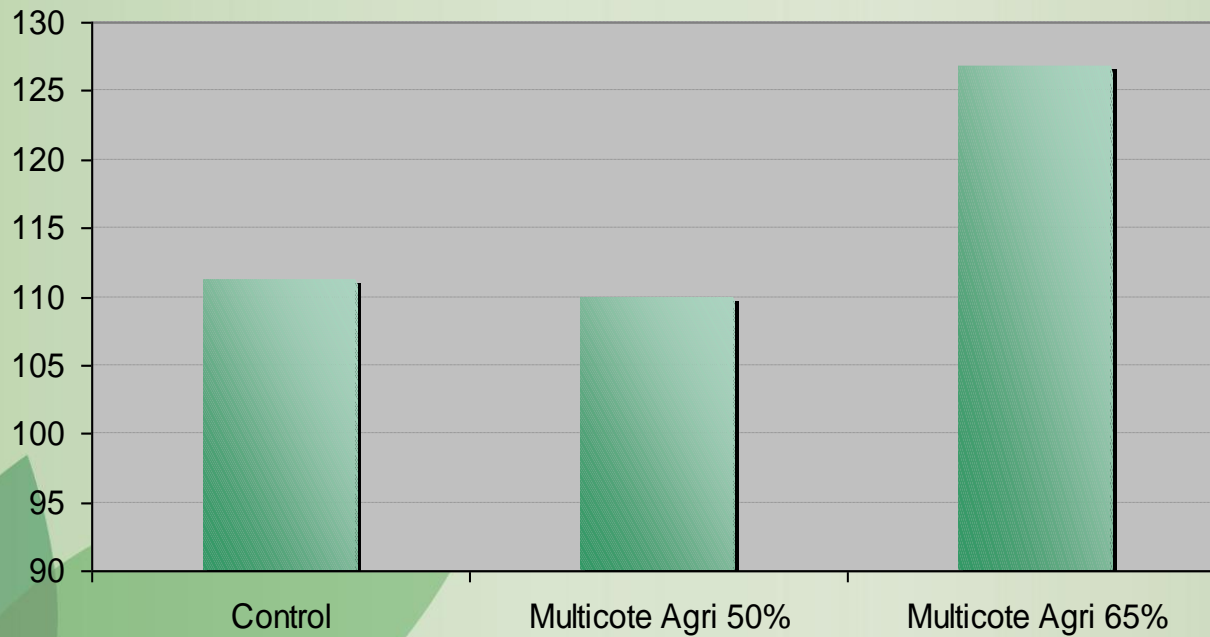


| | Total yield (T/ha) | Marketable yield (T/ha) | Mean fruit size (g) |
|---------------------------------|--------------------|-------------------------|---------------------|
| Control | 126.72 a | 111.23 a | 166 a |
| Multicote [®] Agri 50% | 124.89 a | 109.97 a | 173 b |
| Multicote [®] Agri 65% | 140.16 b | 126.83 b | 171 b |

Multicote Agri for Greenhouse Tomatoes - Yields



Total yield (ton/ha)



Multicote Agri for Greenhouse Tomatoes - Conclusions



The benefits of Multicote Agri:

- ✓ Higher total yields with 65% of conventional application rates
- ✓ Similar yields with 50% of conventional application rates
- ✓ Larger fruits at both Multicote Agri treatments



Multicote Agri for Bell-Pepper - Treatments

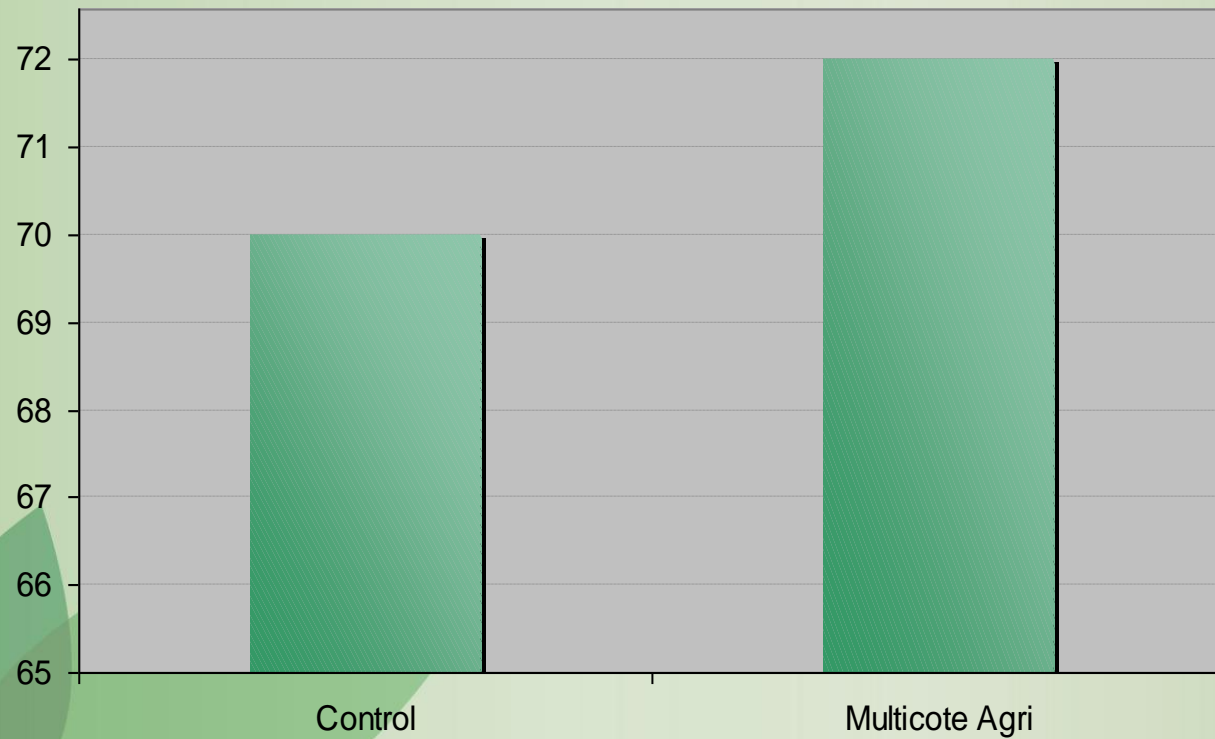


| Treatment | kg/ha | | | | Application |
|---|-------|------|-------------------------------|------------------|---|
| | Total | N | P ₂ O ₅ | K ₂ O | |
| Control (grower's practice): Liquid 5-3-8 | 35000 | 1750 | 1050 | 2800 | Nutrigation |
| Multicote Agri 17-9-27 longevity: 8 months | 5147 | 875 | 463 | 1390 | Base-dressing. Drip irrigation as in the control plot |

Multicote Agri for Bell-Pepper



Yields (ton/ha)



Multicote Agri for Bell-Pepper - Conclusions



The benefits of Multicote Agri:

- ❖ Multicote Agri fertilization at 50% of liquid application rates significantly increased pepper yields.
- ❖ Multicote Agri treatment resulted in more fruits per plant.
- ❖ Fruit size was slightly increased, too.



Application recommendations



| | Application Rate % of local practice | | | % coated nutrients | | |
|------------|---|-------------------------------|------------------|--------------------|-------------------------------|------------------|
| | N | P ₂ O ₅ | K ₂ O | N | P ₂ O ₅ | K ₂ O |
| Light soil | 60 | 70 | 50 | 95 | 50 | 80 |
| Heavy soil | 70 | 70 | 60 | 90 | 40 | 70 |



Application recommendations

- ❖ The recommendations should be considered as a general guide only. Actual application rates and percentage of coated nutrients may be up to 10% more or 10% less than the values given in the table .
- ❖ The exact rates, timing and mode of application should be determined according to specific crop needs, soil and water conditions, and the grower's experience.
- ❖ Consult Haifa agronomist to customize the optimal fertilization program for your needs.

Thank You

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