

CompleSal[®]

COMPLETES

your successful crop management

**Foliar Nutrition Strategies
Apples and Pears**

K
kams.ca
KAM'S
GROWERS SUPPLY INC.

orders@kams.ca
1.877.821.1684

Apples¹

Pears²

Breaking Dormancy



After the tree breaks dormancy and reaches silver tip on apples or bud swell on pears, apply:

Complestal Macro Z @ 3.5 L/ha

A single application during this early growth stage will assist in regenerating vegetative activity within the tree after a lengthy period of dormancy.



Breaking Dormancy

Pre-flowering, First Pink



At first pink on apples and white bud on pears, apply:

Microplant Mg @ 1.17 L/ha

Microplant Mg delivers a full complement of critical micronutrients to address any latent deficiencies prior to bloom and may be tank mixed with most common crop protection products.³



Pre-flowering, First Pink

Cell Division and Onset of Fruit Enlargement



After petal fall, during cell division and the onset of fruit enlargement, apply a rotation of the following applications at 10–14 day intervals:

Complestal Calcium @ 4.68 L/ha

+

Microplant Mg @ 1.17 L/ha

Two to four applications during this stage of fruit development will provide additional micronutrients and critical levels of calcium for strong cell wall development.



Cell Division and Onset of Fruit Enlargement



The built in adjuvant package within all Complestal formulations enhance crop protection product efficacy, making it an ideal tank mix partner with fungicides and insecticides.³



Fruit Enlargement



To finish the crop and ensure the prevention of physiological disorders such as bitter pit during fruit enlargement, apply:

Complestal Calcium @ 4.68 L/ha

One to two applications during this final stage of fruit development will enhance fruit firmness for improved storability. Additional late season tank mix options remain possible with Complestal formulations.³



Fruit Enlargement

After Harvest

To prepare the tree for winter dormancy, after harvest and prior to leaf drop, apply:

Macro Z @ 3.5 L/ha + Complestal Boron @ 1.17 L/ha

Fall applications are an ideal time to get critical micronutrients into the woody tissue to benefit future produce without risk of injury to the current year crop.

After Harvest

¹Photo variety: Red Delicious ²Photo variety: Bartlett

Always follow label requirements for rates, timing of application, adjuvant requirements and mixing order of all tank mix combinations. Listed spray programs are recommendations only. Consult your local extension specialist or certified crop advisor about your specific foliar needs.

Breaking dormancy

| Product | Rate/ha | N | P ₂ O ₅ | K ₂ O | Ca | Mg | S | B | Cu | Fe | Mn | Mo | Zn |
|---------|---------|-------|-------------------------------|------------------|----|----|-------|-------|-------|-------|-------|--------|-------|
| Macro Z | 3.5 L | 10.0% | 10.0% | 10.0% | - | - | 1.32% | 0.02% | 0.05% | 0.10% | 0.05% | 0.001% | 2.00% |

Pre-flowering

| | | | | | | | | | | | | | |
|---------------|--------|------|--|-------|--|-------|------|-------|-------|-------|-------|--------|-------|
| Microplant Mg | 1.17 L | 5.0% | | 10.0% | | 1.80% | 5.2% | 0.30% | 0.50% | 1.00% | 1.50% | 0.010% | 1.00% |
|---------------|--------|------|--|-------|--|-------|------|-------|-------|-------|-------|--------|-------|

During cell division and fruit enlargement – repeat as needed

| | | | | | | | | | | | | | |
|---------------|--------|-------|--|-------|-------|-------|------|-------|-------|-------|-------|--------|-------|
| Calcium | 4.68 L | 10.0% | | | 10.7% | 1.20% | | 0.05% | | | 0.10% | 0.001% | |
| Microplant Mg | 1.17 L | 5.0% | | 10.0% | | 1.80% | 5.2% | 0.30% | 0.50% | 1.00% | 1.50% | 0.010% | 1.00% |

Fruit enlargement

| | | | | | | | | | | | | | |
|---------|--------|-------|--|--|-------|-------|--|-------|--|--|-------|--------|--|
| Calcium | 4.68 L | 10.0% | | | 10.7% | 1.20% | | 0.05% | | | 0.10% | 0.001% | |
|---------|--------|-------|--|--|-------|-------|--|-------|--|--|-------|--------|--|

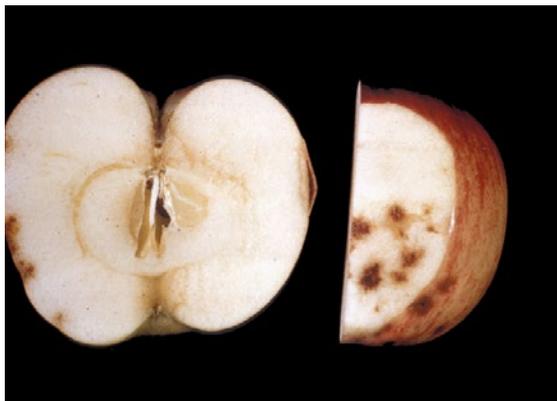
Post-harvest dormancy preparation

| | | | | | | | | | | | | | |
|---------|--------|-------|-------|-------|---|---|-------|-------|-------|-------|-------|--------|-------|
| Boron | 1.17 L | 8.0% | 10.0% | | | | 0.2% | 7.00% | 0.05% | 0.10 | 0.05% | 0.001% | 0.05% |
| Macro Z | 3.5 L | 10.0% | 10.0% | 10.0% | - | - | 1.32% | 0.02% | 0.05% | 0.10% | 0.05% | 0.001% | 2.00% |



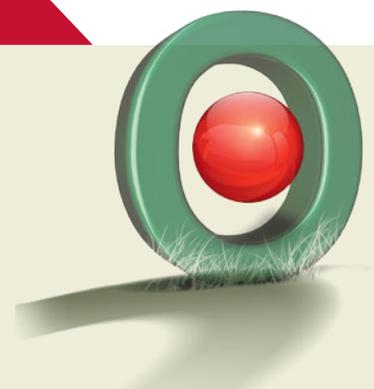
Treatment options

| Complestal Product | Purpose |
|--------------------|---|
| Calcium | <ol style="list-style-type: none"> 1. Prevention of physiological disorders like bitter pit 2. Improved shelf life of fruits 3. Improved fruit firmness |
| Boron | <ol style="list-style-type: none"> 1. Boron deficiency 2. Improved fruit set 3. Higher yield 4. Higher fruit quality 5. Reduced flesh browning of Conference pears during CA-storage |
| Microplant Mg | Micronutrient deficiencies |
| Macro Z | <ol style="list-style-type: none"> 1. Plant stress reduction 2. Improved efficacy of crop protection products 3. Buffering of spray mixtures |



Bitter pit in apples

Physiological disorders, such as bitter pit in apples, can be prevented with a foliar nutrition program built around the benefits of Complestal. Developed specifically for foliar application, Complestal Calcium is formulated with an advanced adjuvant package for enhanced utilization of the applied calcium. Research data indicates improved calcium uptake in the peel and cortex of apples treated with Complestal Calcium over alternative calcium sources.



Benefits of Foliar Fertilization

Foliar nutrition is the ultimate tool for managing plant stress, delivering targeted nutrients during peak demand and efficiently addressing deficiencies in the plant at the right time.

- Improve plant health
- Direct delivery of nutrients
- Address nutrient deficiencies
- Offset poor soil uptake
- Deliver nutrients to specific areas of demand within the plant
- Offset poor nutrient distribution within the plant
- Promote root absorption
- Stimulate photosynthesis

ANTI-EVAPORANTS

- ▶ **Benefit:** Long-lasting spray film



Droplets reach the leaf surface even under hot conditions and nutrients remain in a dissolved form.

BUFFERING AGENTS

- ▶ **Benefit:** Improves stability of the spray solution and provides optimum nutrient availability when tank-mixing with many common crop protection products.

MISCIBILITY

- ▶ **Benefit:** Application and handling efficiencies result from tank mixing Complestal formulations with many common crop protection products.

STICKERS

- ▶ **Benefit:** Reduced loss due to rain



Stickers increase nutrient adhesion on the leaf surface.

SURFACTANTS

- ▶ **Benefit:** Maximized uptake area



Droplets spread evenly on the leaf. The covered surface is maximized.

HUMECTANTS

- ▶ **Benefit:** More efficient foliar fertilization



Ambient water from the air is attracted and re-moisturizes the leaf surface.

STRONG CHELATING AGENTS

- ▶ **Benefit:** Ensures the water solubility required for plant uptake and utilization.

