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POLLEN SUPPLIES, INC.
EST. 1929

Pollination Enhancement & Introduction to Vericet

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Controlled Pollination: A Brief Overview

Harvest, Storage, Application

Factors Limiting Pollination

Trials and Grower Experience

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Pollen is Harvested from Certified Orchards.

Most blossoms are hand-picked (APPLE, CHERRY, PEAR, KIWI, ETC)

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Hand-Thinning of Cherry Blossoms

Blossoms are picked at ‘popcorn’ phase for maximum viability

Cherries, Near Pasco, WA

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Pollen is Harvested from Certified Orchards.

Almonds Near Hughson, CA

Some Blossoms are Machine Harvested (ALMOND, WALNUT)

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- Blossoms Collected and
- Ready for Processing

Cherry Blossoms, Near Linden, CA

- Blossoms are shredded
- Anther Sacs are removed
- Dehydration releases pollen

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Pollen Dried and

Ready for Packaging

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MEASURES OF POLLEN QUALITY

VIABILITY

CAN THE POLLEN GRAIN SUCCESSFULLY GROW A POLLEN TUBE?

COMPATIBILITY

IS THE POLLEN OF AN ACCEPTABLE GENOTYPE?

DISEASE SCREENING

FREE OF PNRSV, CLRV, TRSV, AMV, ETC?

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Pollen is Always Stored

FROZEN

And Kept Frozen Until Just Prior To Use

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POLLEN APPLICATION (2 METHODS):

BEEHIVE DISPENSER

BLOWER APPLICATOR

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Beehive Application

- **Efficient**
- **Uses less material**
- **Bees deliver to blossoms**
- **Some leakage to nearby blocks**

The applicator places dry pollen in the beehive dispenser during hours of high bee activity.

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Blower Application

- **Applied directly to *your* trees**
- **More control of application timing**
- **Bees redistribute pollen in orchard**
- **Requires a carrier**

Pollen is applied 2-3 times during the most vigorous bloom.

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FACTORS LIMITING SUCCESSFUL POLLINATION AND FERTILIZATION

- POOR POLLINIZER OVERLAP
- LIGHT POLLINIZER BLOOM
- POOR AMBIENT POLLEN VIABILITY
- COOL TEMPS DURING BLOOM
- INCOMPATIBLE SOURCE POLLEN
- SUBOPTIMAL NUTRITION IN PISTIL TISSUES

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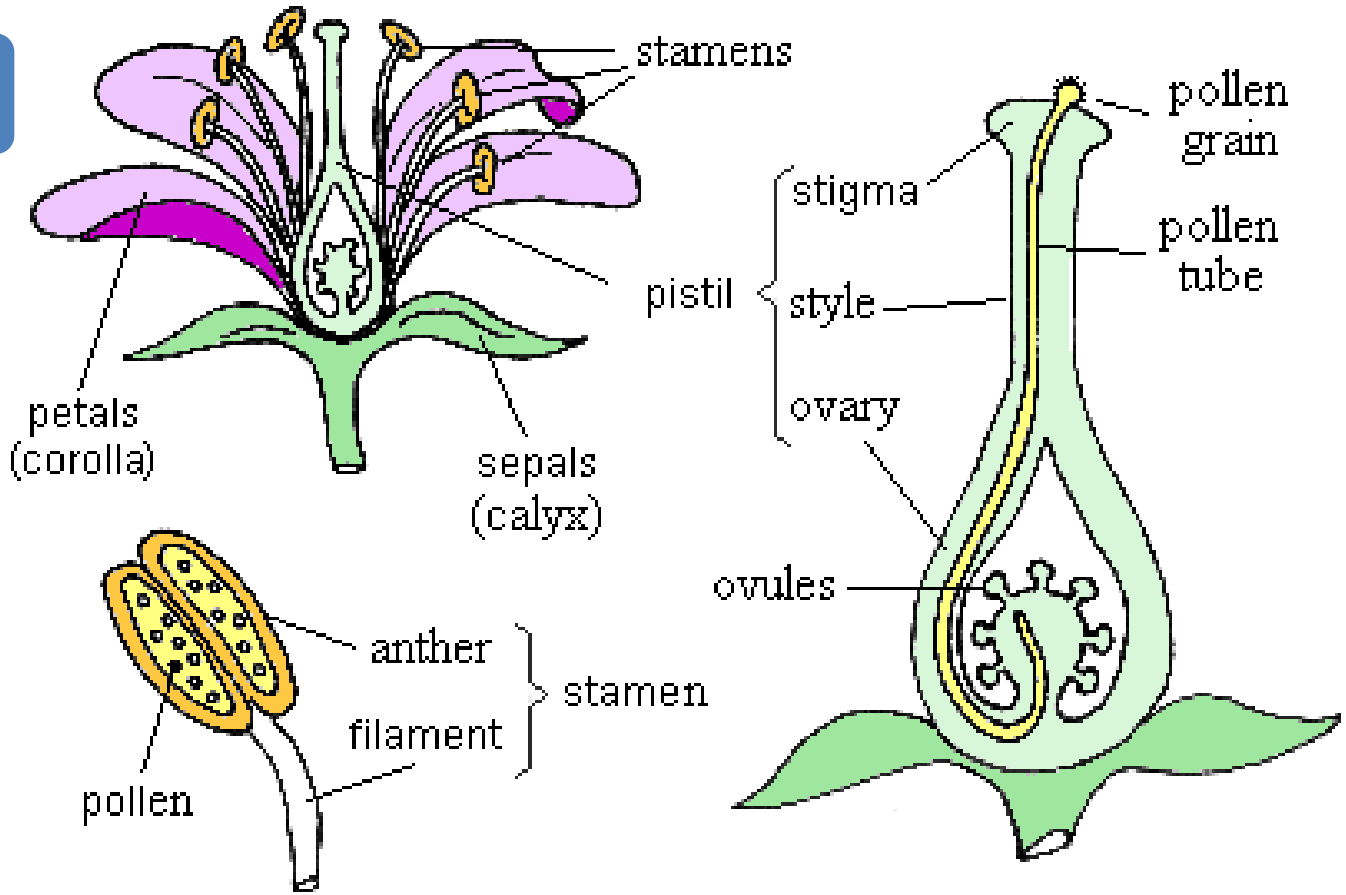
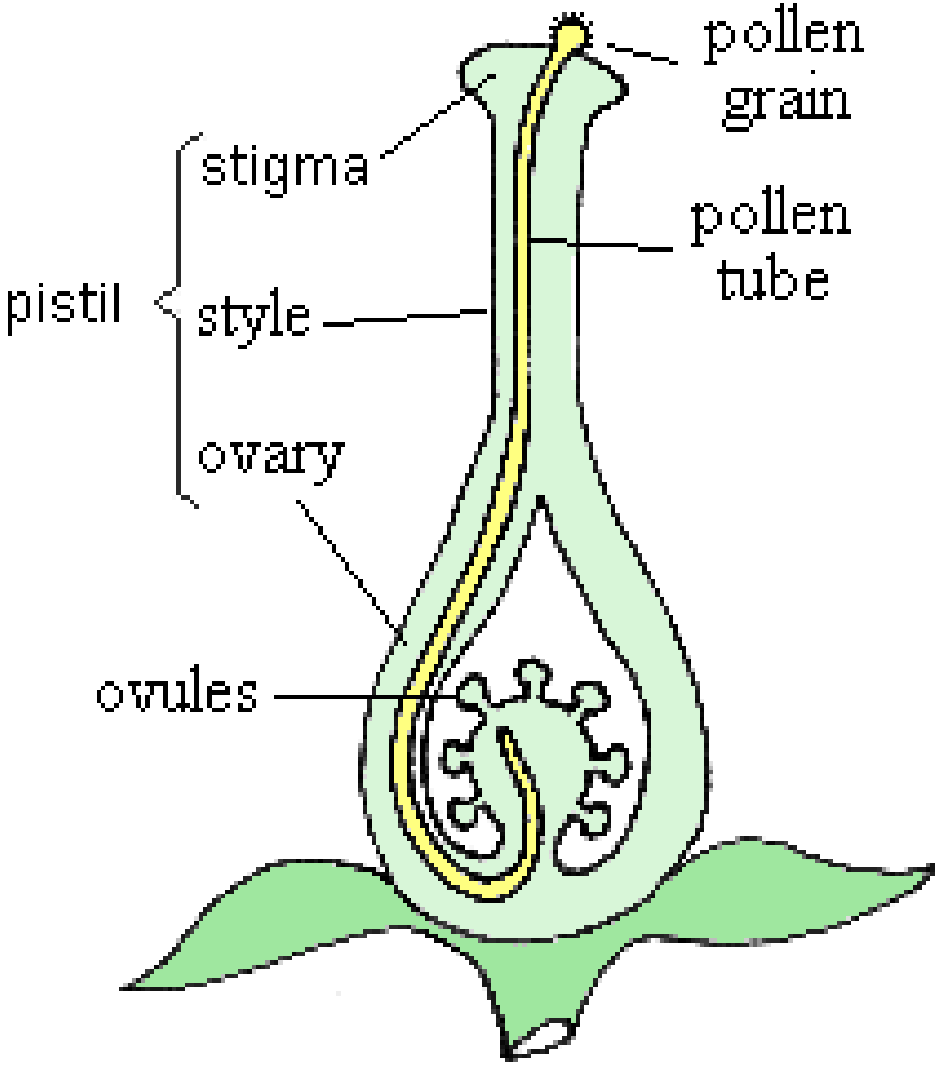
TYPICAL FLOWER



Typical Pistil

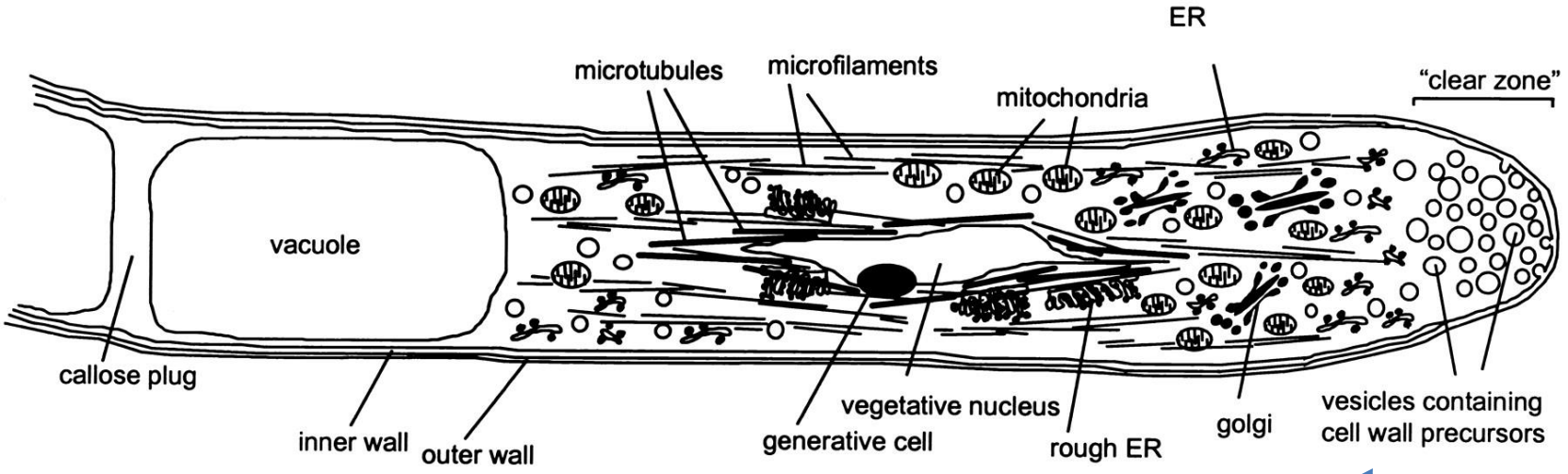


-Incompatible pollen won't begin germination

-Pollen tubes with poor nutrition will grow slow, or irregularly.

-Cool Temps can critically slow tube growth

The Pollen Tube



Nutrient uptake in this apical region is critical to the rapid and accurate growth of a high-integrity pollen tube. This process depends on a ready supply of specific nutritional components, and a rich source of carbon.

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VERICET
Brings Pollination to Life

Typical Carriers

- Inert
  - Used only to dilute material for machine application.
- Balanced Minerals
- Carbon Units
- Metabolic Accelerators
- Increased Enzyme Function
- Easy Pick up/Delivery By Bees
- Hygroscopic

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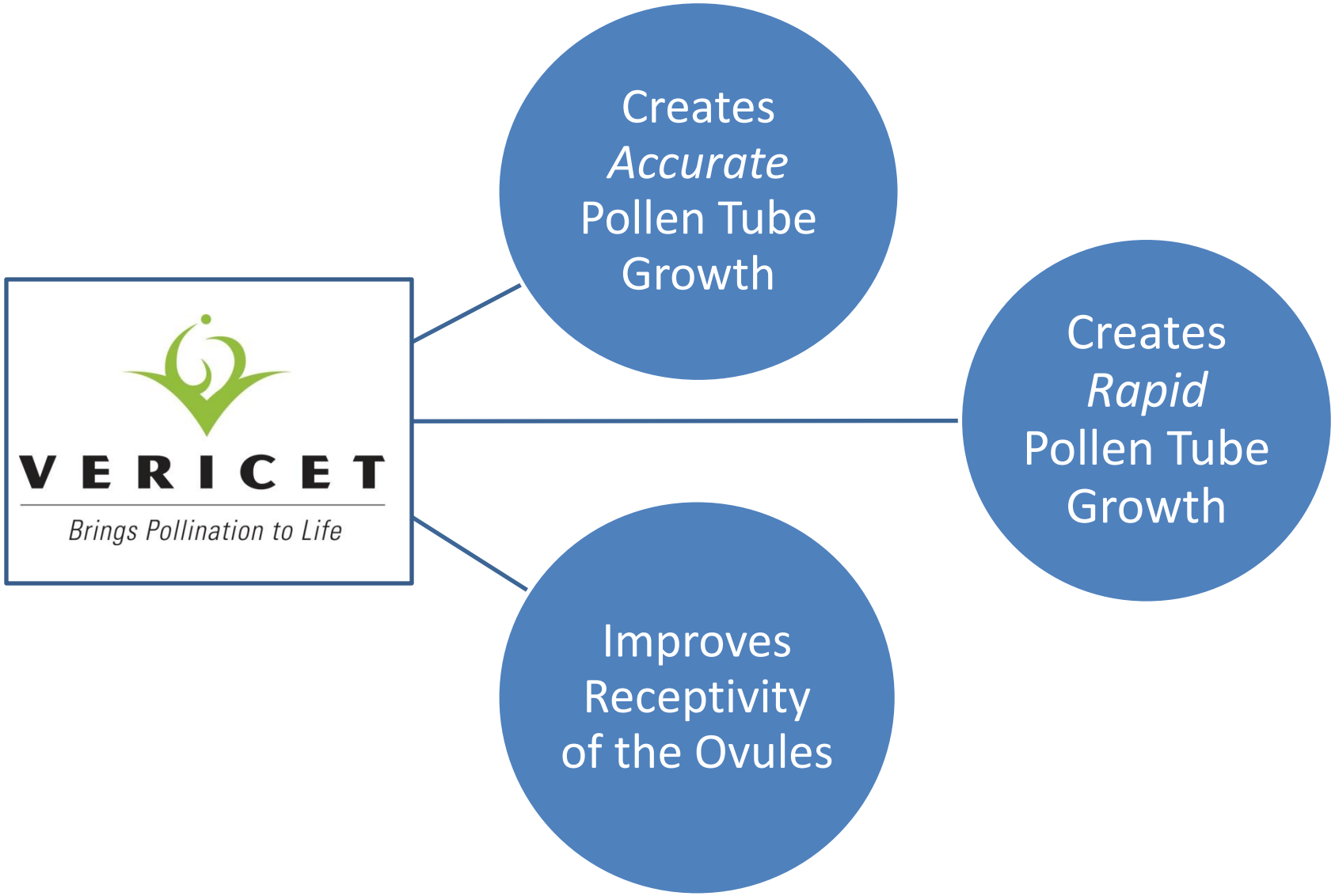
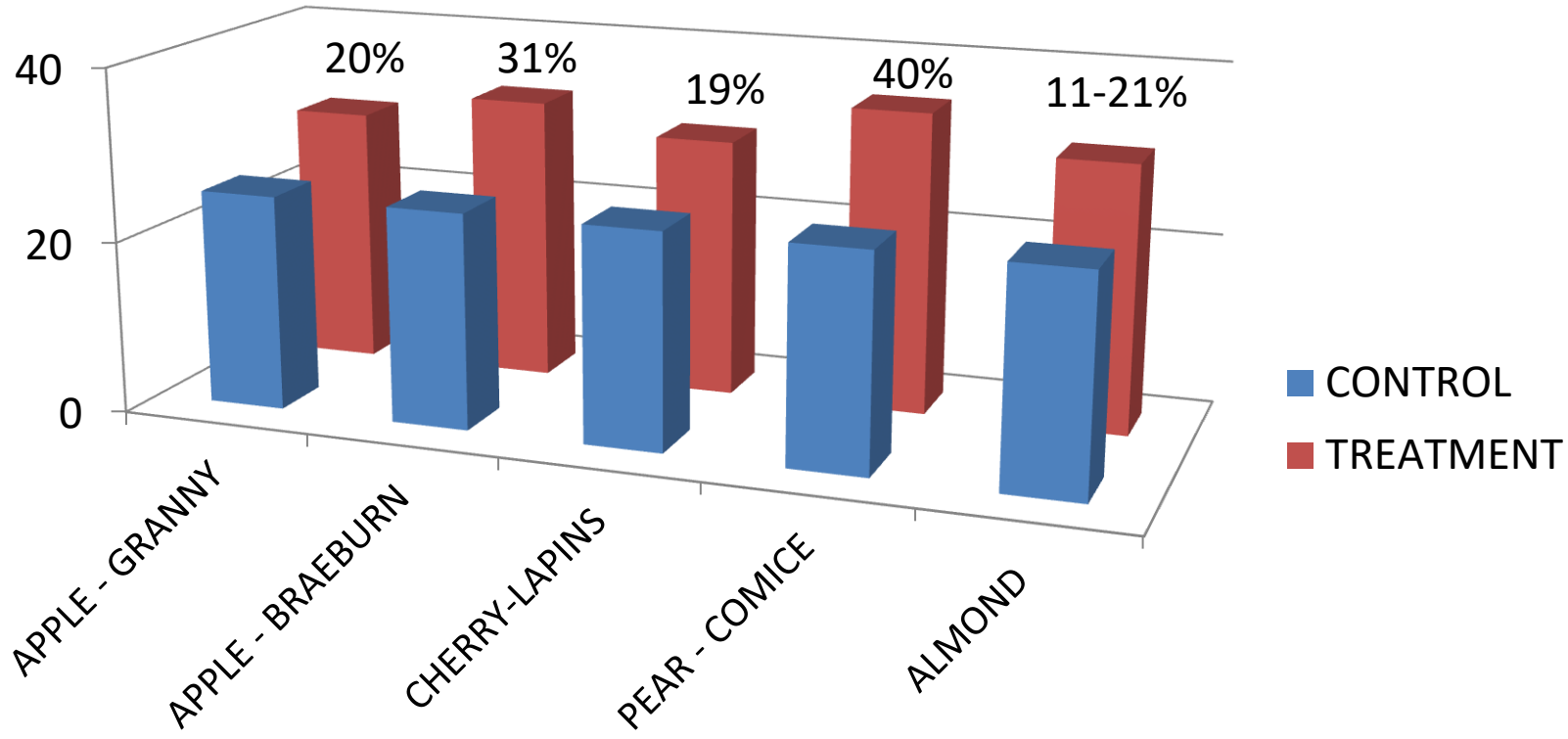


Antles Pollen

Trial Results with Pollen Plus Our Nutrient-Based Carrier.



•Applications were made with Gold product: Pollen 60g/acre; Carrier 180g/acre.

•Materials were cut in half and applied on two separate days with bloom state between 30-60% petal opening.

•Materials were applied with a blower unit mounted on a small orchard vehicle.

•All trials except almond were replicated trials. Almond was a paired-block trial.

•Trials were conducted during the 2010, 2011, 2012, 2014 and 2015 seasons in Washington, California and New Zealand.

Return On Investment

Sweet Cherries

5 US ton/Acre Crop at a price of $40/box:

≤ 1% increase in production covers the cost of the program.

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Thank You!