





# **Managing Pollinators on an Organic Cranberry Marsh**





# James Lake Farms



Family Owned

Grower and Packer  
of Organic  
Cranberries

Fresh and Frozen





**2 farm locations**

**189 acres certified organic**







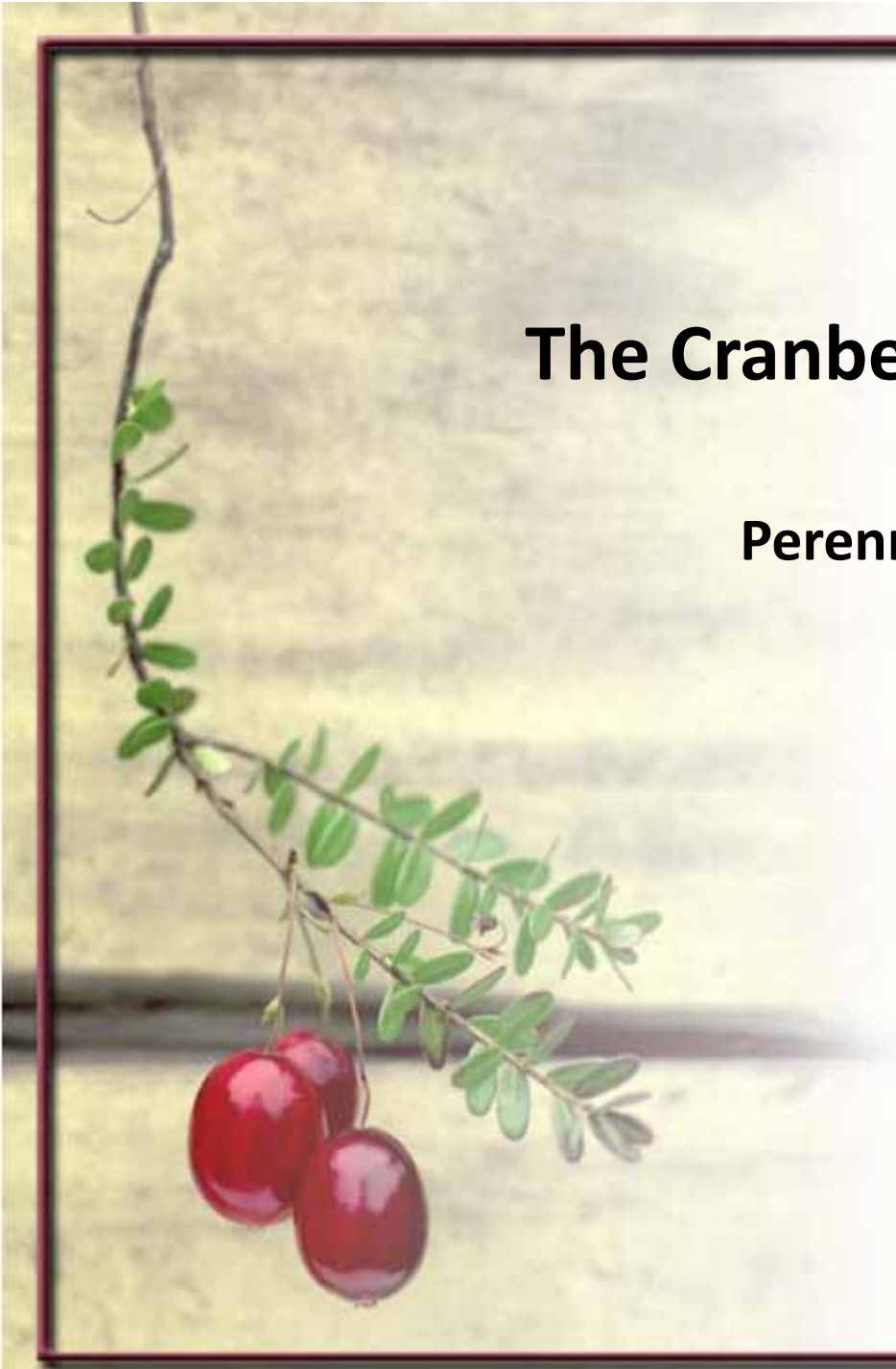






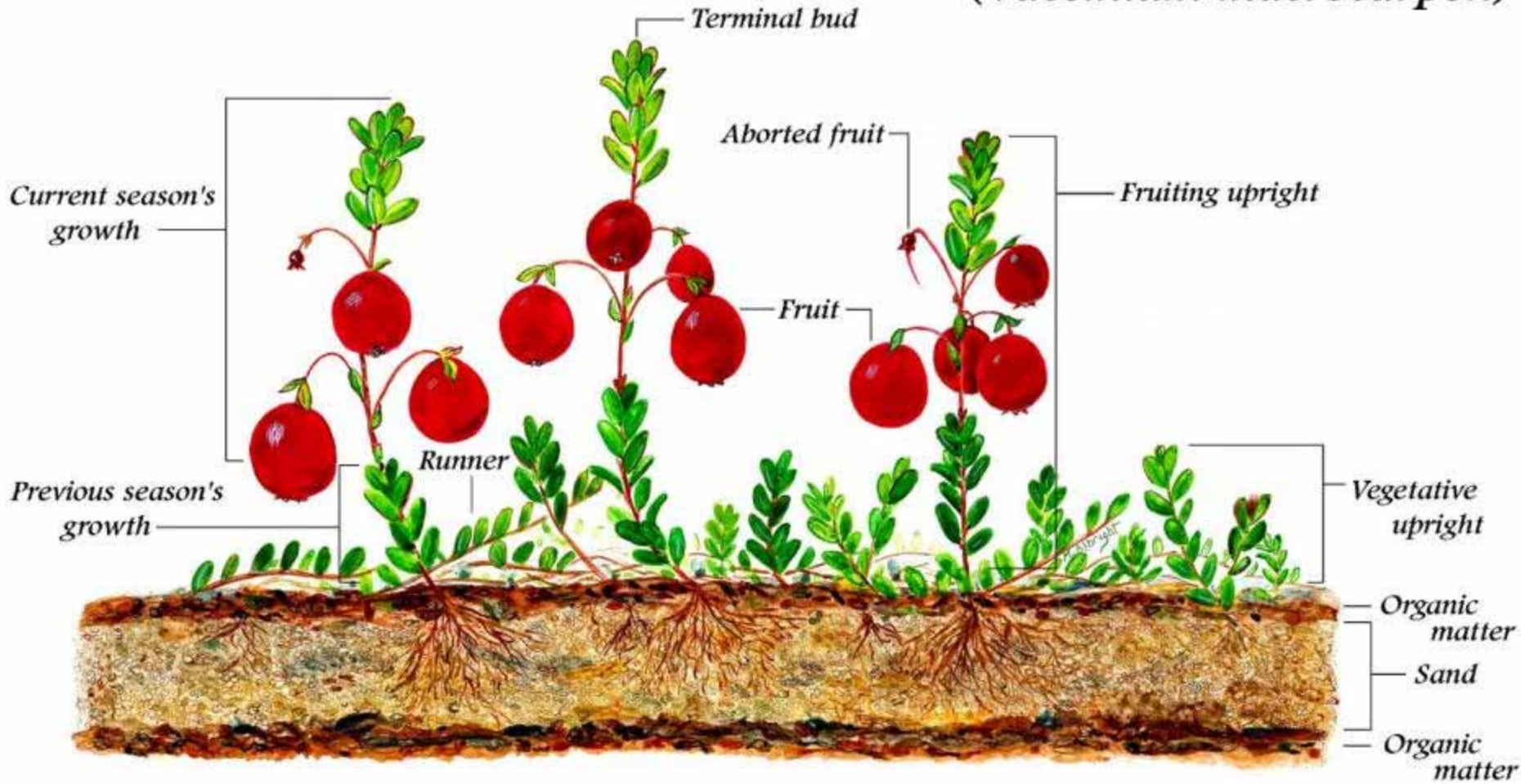
# The Cranberry Plant

Perennial





# The American Cranberry (*Vaccinium macrocarpon*)





# The Cranberry Plant

**Perennial**

*Vaccinium macrocarpon*

**One of three native fruit crops  
grown commercially in North  
America**

**Requires pollinator activity  
to grow commercial yields**







## **Pollination Challenge**



**On our 189 acres of  
planted cranberries,  
we can have up to  
2,000,000,000  
blossoms**



**About 40-50% of blossoms “set” to become berries**

**A viable berry will require at least 8 pollen tetrads to germinate**





**Native Pollinators**



**Honeybees**



**Commercial  
Bumblebees**



**Honeybees**

**Typically staged at 2 hives/acre**

**Pros**

- **Number of bees in the hive**

**Cons**

- **Honey bees facing multiple threats**
- **Expensive**
- **Nectar and pollen collectors**
- **Selective Feeders**
- **Need good weather to work**



## Commercial Bumblebees

Typically staged at 2.5 hives/acre

### Pros

- Work in a wide range of conditions
- Pollen collectors
- Buzz pollinators

### Cons

- Lower number of bees/hive





## **Native Pollinators**

### **Pros**

- **No staging or deployment**
- **No \$**
- **Diversity of species**

### **Cons**

- **Highly variable population**



## Native Pollinators





## **Native Pollinators**

### **Rules:**


- 1. Do no harm**
- 2. Provide diverse habitat with natural food sources**

# Pest Management

Utilize Integrated Pest Management (IPM) techniques







**Goal is to maximize cranberry  
pollination while maintaining a  
balanced ecosystem**



**Encourage Diversity**

**Manage the entire property,  
not just the cranberry bed**

**Conserve the pollinator and  
pollinator plants you have**

**Augment what you don't have**



# **Pollination – 3 Windows of Management**

**Pre-Season prior to Cranberry Blossom**

**Cranberry Blossom**

**Post Season after Cranberry  
Blossom**





# **Pre-Season before Cranberry Blossom**

**April, May, June**

**Important to build up populations  
quickly**



# Pre-Season before Cranberry Blossom

April, May, June

## Strategies

- Encourage early pollen and nectar sources on the whole property

















# Cranberry Blossom

July

## Strategies

- Choose inputs with minimal pollinator toxicity
- Make applications when the pollinators are not present
- Minimize competitive bloom





# Mowing









# Post Season – After Cranberry Blossom

August, September and October

- Important to build up populations prior to winter
- Conserve pollinator plants
- Augment with plantings













Augment







A close-up photograph of a cranberry plant. The image shows several upright stems with small, pointed, reddish-pink buds. The leaves are green and have a slightly waxy appearance. The background is a soft-focus green, suggesting a field of similar plants.

# **After Cranberry Blossom**

**Goal is to bring into the fall a strong population that will overwinter.**



**Native Pollinators**



**Commercial  
Bumblebees**



**Honeybees**

**Questions?**

