

# **LARGE SCALE MIGRATORY BEEKEEPING IN THE UNITED STATES**

Apicultures Muy Grande en Los  
Estados Unidos

## 2.4 Million Hives in United States

- 200,000 small beekeepers (<5 hives) manage .5 million hives.
- 2,000 commercial beekeepers manage <2 million hives.
- 800 commercial beekeepers supply 1.4 million hives for almond pollination each year. At least 75% of commercial hives migrate!
- Average size of commercial beekeeper is 1000 to 2000 hives
- At least 40+ beekeepers manage 10,000+ hives

# COMMERCIAL BEEKEEPING

## primary sources of income

### 1. Crop pollination

\$250+ million pollination fees



### 2. Honey production

\$200 million wholesale pricing

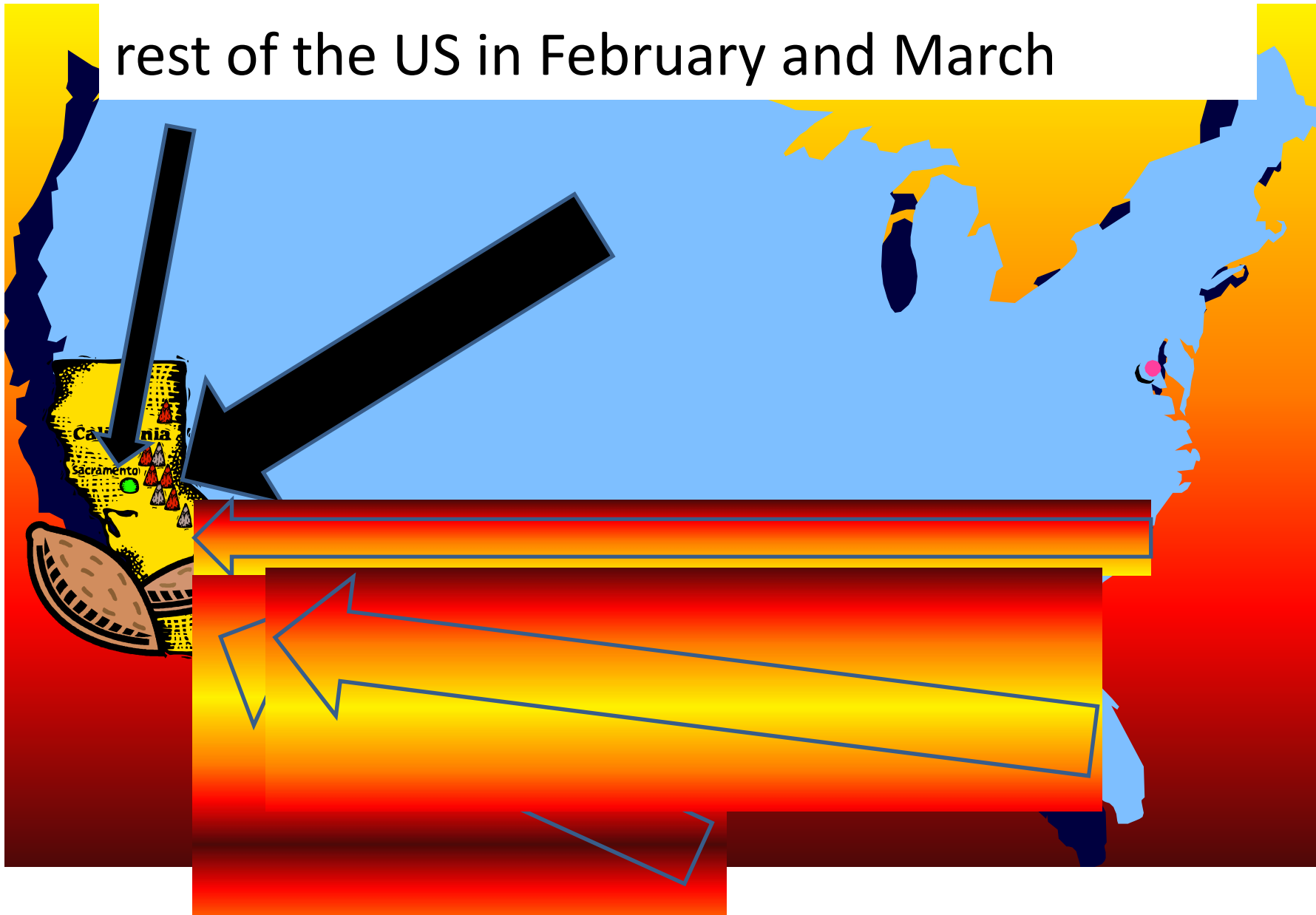
### 3. Queen and package bees

\$<3 million?

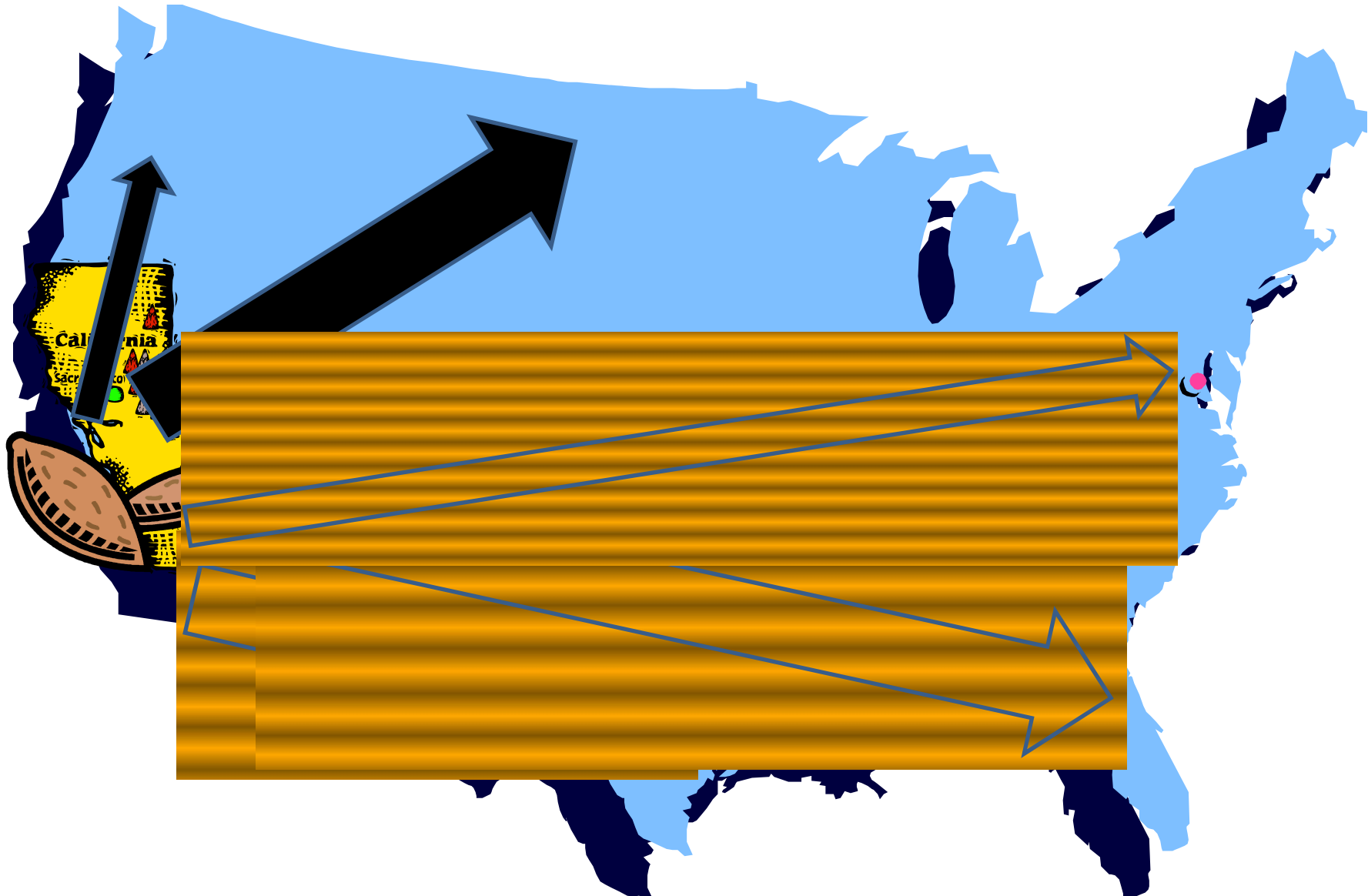
# CROP POLLINATIONS

- Almonds - 1.4 million hives, February to March in California
- Apples – Washington, New York, Maine, Pennsylvania, North Carolina
- Blueberries - Oregon, Michigan, Maine, New Jersey, Georgia, Florida,
- Cranberries – Wisconsin, Massachusetts, Washington, New Jersey
- Vine crops – watermelons, cucumbers, squash found in many states
- Seed crops - alfalfa, onion, carrot, canola, found mostly in the western states

California Almonds receive hives from the rest of the US in February and March



**After almond pollination, colonies are available for other crops and honey production in summer.**



Many US beekeepers use 10 frame double deep hives. Most commercial beekeepers keep their hives on pallets. I place 6 hives on a pallet. It is more popular to see 4 hives on a pallet.





# Hives ready to be loaded on a truck





Most commercial US beekeepers use forklifts. Bobcat loaders are popular



# Small truck spreading bees in the field





# Ten wheel truck load of bee



# Loading semis at night





# Arriving in California





# Unloading in the field





# Just before almond bloom





# Almond bloom





# Blueberry pollination in Maine



# Top 10 Honey production areas



1. North Dakota
2. South Dakota
3. California
4. Florida
5. Montana
6. Minnesota
7. Michigan
8. Wisconsin
9. Texas
- 10+. Georgia, New York, Idaho

# Hive Management to Maintain Healthy Hives

- Challenge to control varroa mites
- Challenge to keep hive count
- Challenge to keep hives well fed

# Varroa Control is a very big problem for US beekeepers

- Chemical controls, fluvalinate and coumaphos approved but not often effective
- Formic Acid MAQS new product
- Thymol products approved but temperature sensitive
- Genetic Selection helps
- Splitting hives and breaking brood cycle helps
- New comb helps



# Making Splits

- Primary reason for migration... produce bees in the spring, produce honey or provide hives for pollination in the summer
- Most practical way to requeen
- Most practical way to replace comb
- Only way to keep hive count
- My bees are split 2 times a year in Florida
  - Fall – August, September, October
  - Spring – March, April, May

# Hives needing to be split



# Grafting eggs to raise queen cells





# Queen cells ready to install



# Making splits into 10 frame boxes













# Feeding Bees

- Sucrose syrup - I prefer open feeding
- Protein patties - Placed inside hives
- Sucrose fed while splitting and to build hives
- Protein fed during all pollinations and to build hive populations

# Sucrose syrup in bulk totes





# Filling feeder buckets



# Feed station





# Making pollen patties



# Mixer and auger





# Making Pollen Patties



# Muchas Gracias!

- I will be available for questions during the Apimondia
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