Migratory Beekeeping  Follow the nectar ~ by Gottfried Fritz
Always looking for the Motherflow
Reasons for migration (Multiple flows)

1. Can produce own queens & control requeening
2. Longer build up in mild climate
3. Greater summer yields from stronger hives
4. Can harvest more of reserves in fall
5. No long winter of inactivity
6. Additional income from pollination and citrus
Issues of Migration

1. Expense & stress of transport
2. Safety issues and bee loss in travel
3. Exposure to disease & pests
4. Additional expense of two locations
   a. Need some extraction capacity at winter location
5. Care of summer facility during winter
Local migration (with varying forage)

• Travel usually less than 300 miles
• Use medium (2.5 ton) trucks for transport and harvest. 200 to 500 colonies.
• All extraction & processing in one location
• Seasonal travel with crop and conditions
Location – Central valley of California (1950s)

• 1. Almonds---Early Feb to early March

Lower valley ---- Bakersfield to Fresno
Citrus—Oranges & Lemons

1. Lower and central valley—near irrigation
2. Mainly Fresno, Tulare, and Modesto
3. Highly sought after type of honey
4. Mid March to mid April
Cotton and Alfalfa

• Lower and middle central valley—Hanford and Shafter area
• Major problems with pesticides & alfalfa often cut before blooming
• Late April through July
Sage and buckwheat

In foothills east and west of southern and Central valley of California
Very light—almost clear. Often referred to as the finest tasting honey in the U.S.
Long distance migration 1000+ Mi

- Medium size operation 500 to 1200 colonies
- Two 2.5 ton trucks plus one flatbed 1 ton pickup
- During the mid to late 1960s
- Two full time and 2 to 4 seasonal workers
U.S. Highway 281 border to border

From Canadian to Mexican borders 1900 miles
Lake Andes SD to Weslaco TX  1350 miles    29 to 32 hrs
Loaded trucks had 120 double hives per truck
South Texas

1. Tropical climate with citrus crops
2. King Ranch with square miles of range land with plants that bloom during winter months.
Winter forage in the Tx brush

Flowers and brush bloom after fall rains
Colonyes build up in Dec and January
Queen rearing

January and February
Build up colony strength and graft eggs
Citrus and spring build up

- March and April – into citrus groves
- Make splits—many hives moved north as singles
Load hives for trip North

- Take strong hives in first loads
- Try to get hives to SD by May 1 for dandelion for fast build up.
Grasslands of South Dakota

- Much undeveloped land along Missouri River
- Yellow and White sweet clover natural flora
- Large areas of soil bank on fringe of cultivated crops
Main forage – Sweet Clovers

• Blooms June to mid August
Alfalfa—great when soil banked

• July and August
• Many farmers allow short bloom when making hay.
Harvesting and shipping

- Mid July to early Sept
- Honey sold wholesale in 50 gallon drums
Ready to head south

• 4 Truck loads between mid to late Sept
• 1 Truck load of supers in October
Large operation 1000+ miles

- 1990s to present
- 5000 to 10000 colonies
- California to Minnesota 1870 miles
- Medium size trucks and forklifts or bobcats for moving hives
- Semi trucks and trailers used during spring and fall moves
- 3 or 4 full time plus seasonal workers
Joe Tweedy—Oakdale Ca and Eagle Bend Minnesota

• Multi generations
• Joe now retired
Bees back to California

- Mid September to Mid October
- Semi truck and trailer---500 doubles 750
- Travel time is 30 to 35 hours- cross 2 mt ranges
- Route is Mn to Nd to Mt to Id to Nv to Ca
East west travel route
Feeding and colony build up

• December-January increase resources
• Raise some queens
Almond Pollination

- Feb to mid March
- 3 hives per acre (average pollination fee $175/h

The Scope of the Almond Growing in California

- Spanning 500 miles throughout the Central Valley
- 100% of U.S. production
- ~ 6,500+ growers, 100 “handlers”
  - 50% of growers have 50 A or less
  - 90%+ are family owned & run
- Approximately 80% of worldwide production

ABC is a grower-enacted “Federal Marketing Order” established in 1950
- Represents growers and handlers (processors)
- Operates under supervision of USDA

2012 Farm value
Approximately
$4 Billion

Million pounds
100
50–99
1–49

Glenn
Colusa
Yolo
Solano
San Joaquin
Merced
Fresno
Kings
Tehama
Butte
Yuba
Sutter
Stanislaus
Madera
Tulare
Kern
Colonies on pallets

- 4 hives to pallet
- Moved with bobcats
Citrus in Central Valley and Manzanita in foothills

- Feb-mid March
Cherries, Apples and making splits

• Late March through April
• Upper valley Stockton and Lodi
Northeast to Eagle Bend

- Mid April to very early May
- Try to make the Dandelion bloom (first wk of May)
- Build up on pollen and nectar from Dandelion
Main nectar flow

• Late May through July
• Basswood and White Sweet Clover
Honey removal and extraction

Mid July to early September
Memories of migratory beekeeping

1. Very long hours of driving no legal restrictions
2. No stopping except for gas when loaded
3. Peanut butter and Pinto bean sandwiches
4. Screened bees had to be watered at stops
5. Brief sleep before unloading—long sleep after
6. BIG meals at truck stops when trucks did not have bees on them
Impressions of states

• Nebraska---must produce lots of hay

Kansas—Fence posts made of cut stone slabs
State impressions

- Oklahoma---Native American pride

Texas---Very big and lots of Jackrabbits
Greatest experience in migratory beekeeping

• Three unpredictable days in Texas with

• Beulah