

# 2016 Cranberry Field Day

Aug. 2, 2016

Bandon, Oregon

Don Kloft

Ag. Scientist/Station Manager

Ocean Spray Cranberries, Inc.

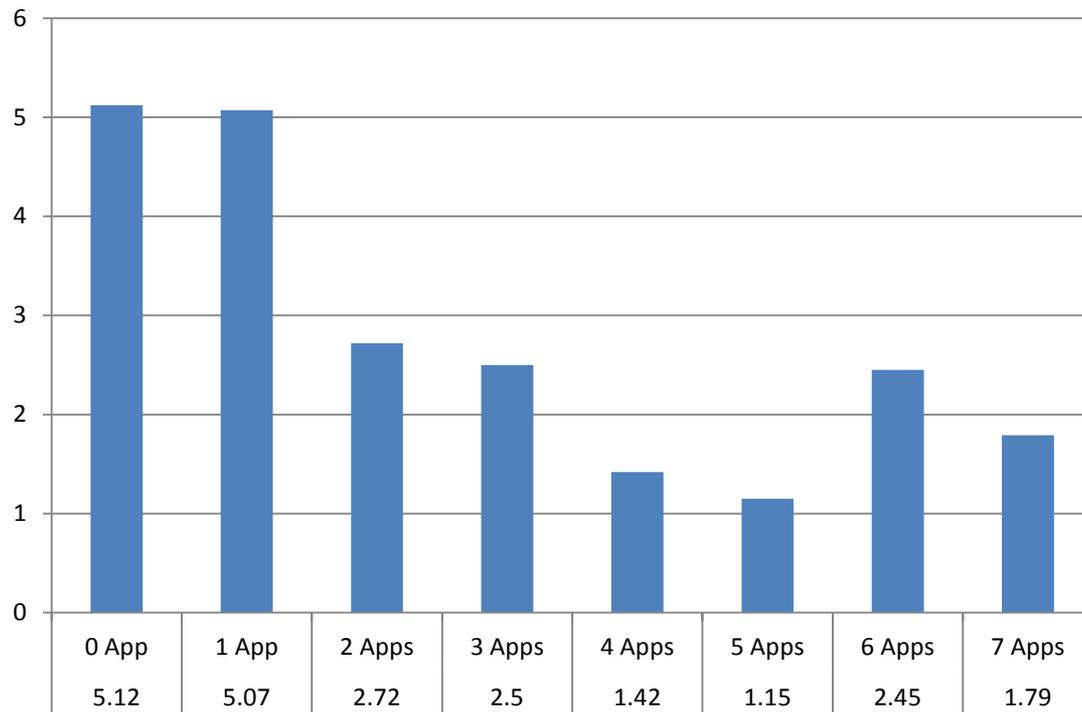
# Fruit Rot

- *Allantophomopsis lycopodina* and *A. cystisporea* (black rot)
- *Botryosphaeria vaccinii* (*Botryosphaeria* fruit rot)
- *Coleophoma empetri* (ripe rot)
- *Colletotrichum gloeosporioides* (bitter rot)
- *Colletotrichum acutatum* (bitter rot)
- *Fusicoccum putrefaciens* (end rot)
- *Phomopsis vaccinii* (viscid rot)
- *Phyllosticta vaccinii* (early rot or bull's eye rot)
- *Physalospora vaccinii* (blotch rot)

# Fruit Rot

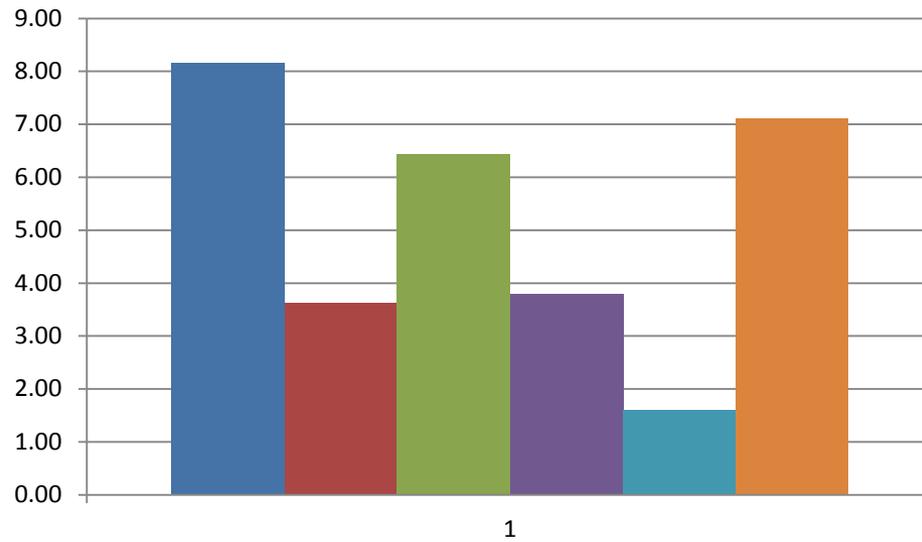


# Average % Poor All Contracts



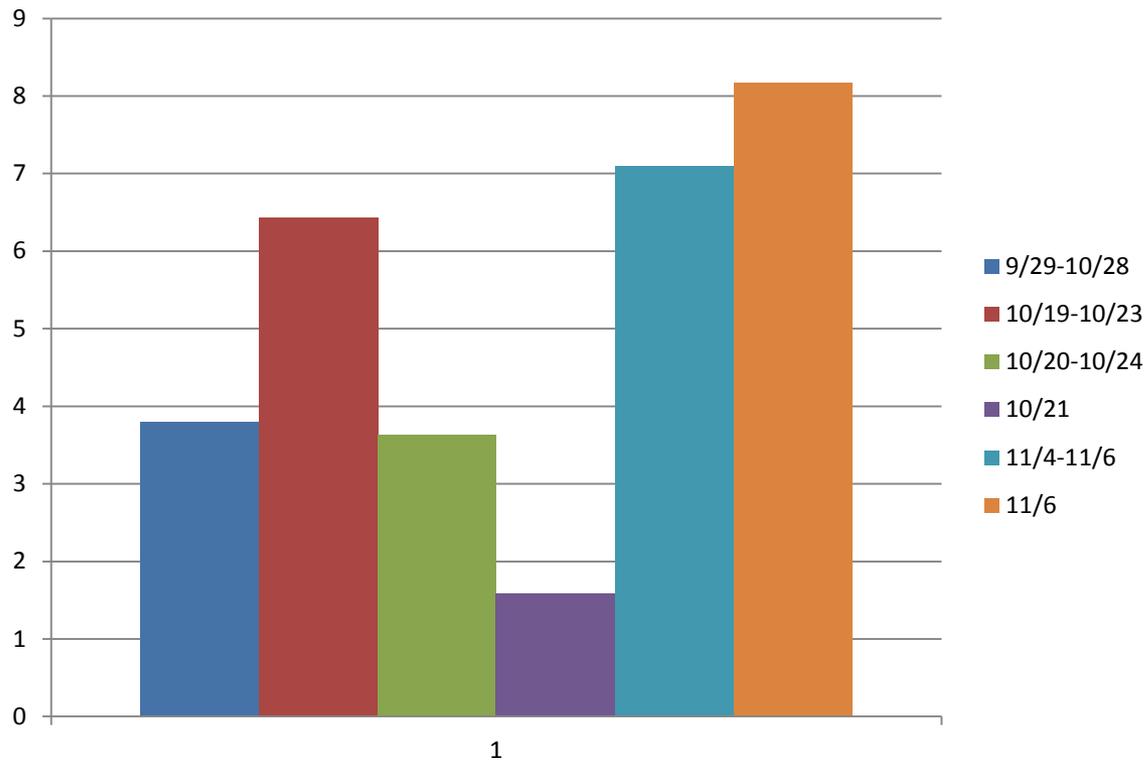
# Average 5.12% Poor Per Contract

## No Fungicide Treatment

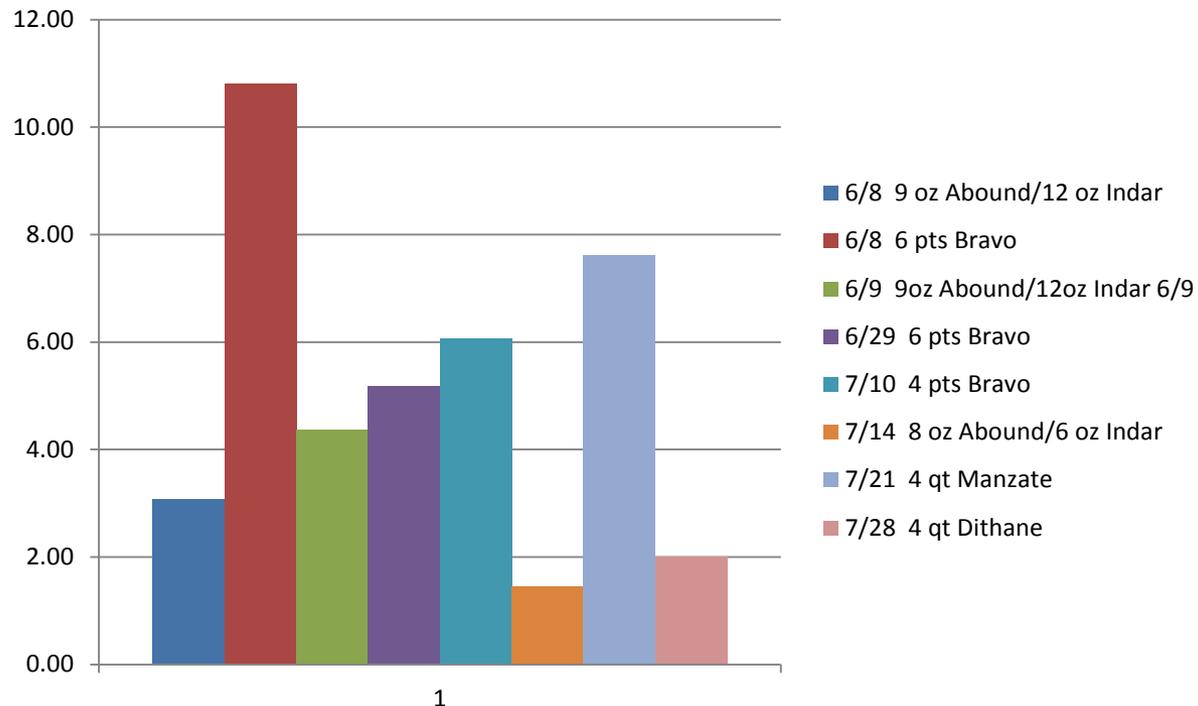


# Average 5.12% Poor Per Contract By Harvest Date

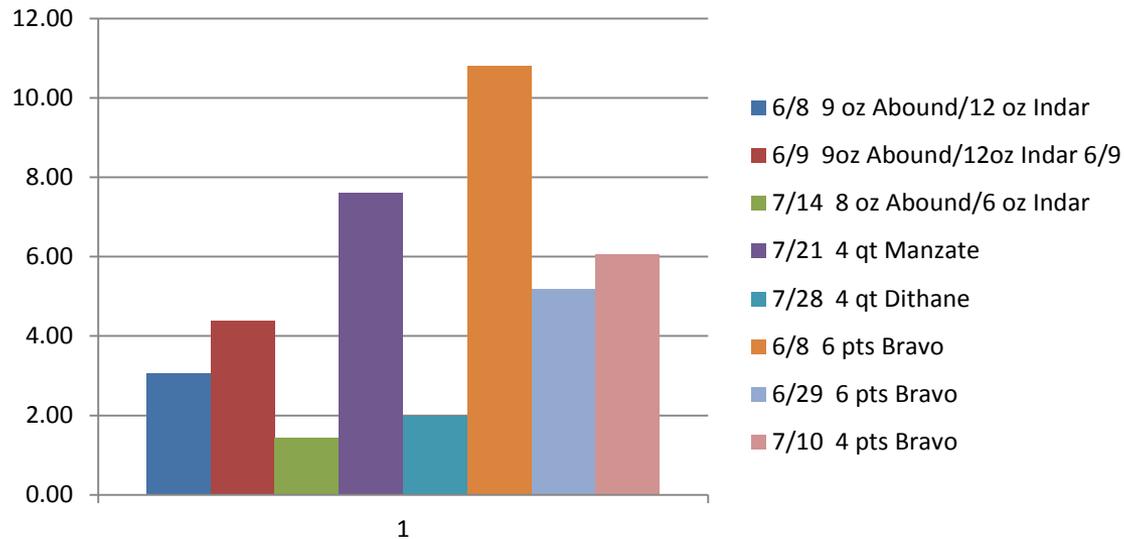
## No Fungicide Treatment



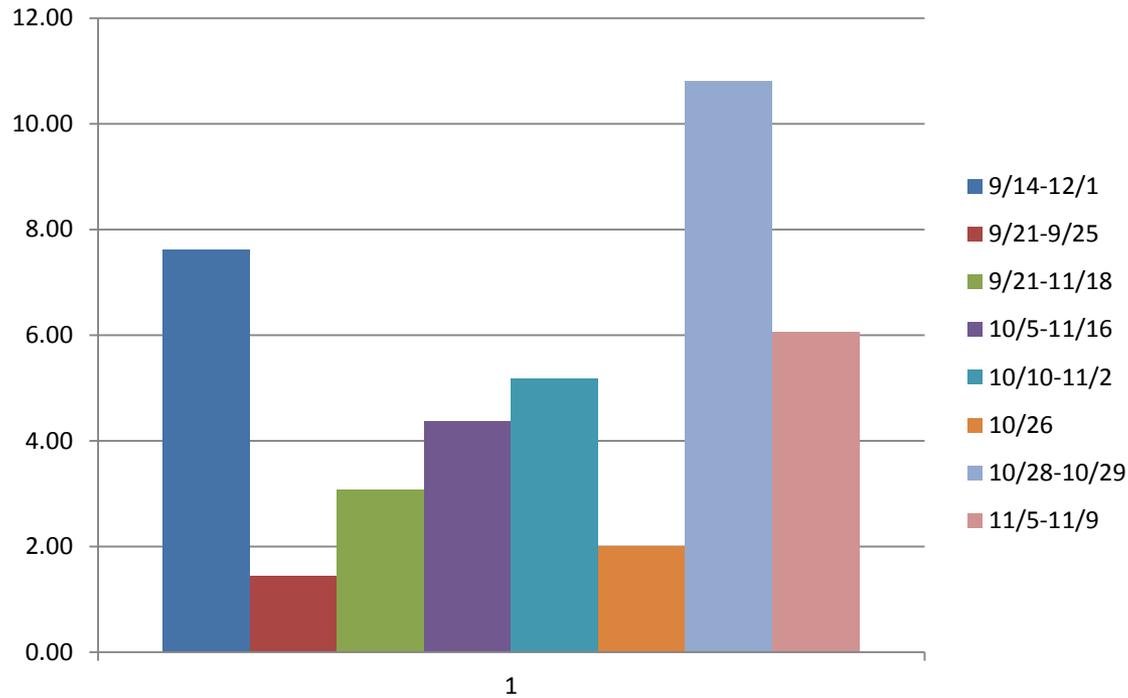
# Average 5.07% Poor Per Contract By Application Date: One Application



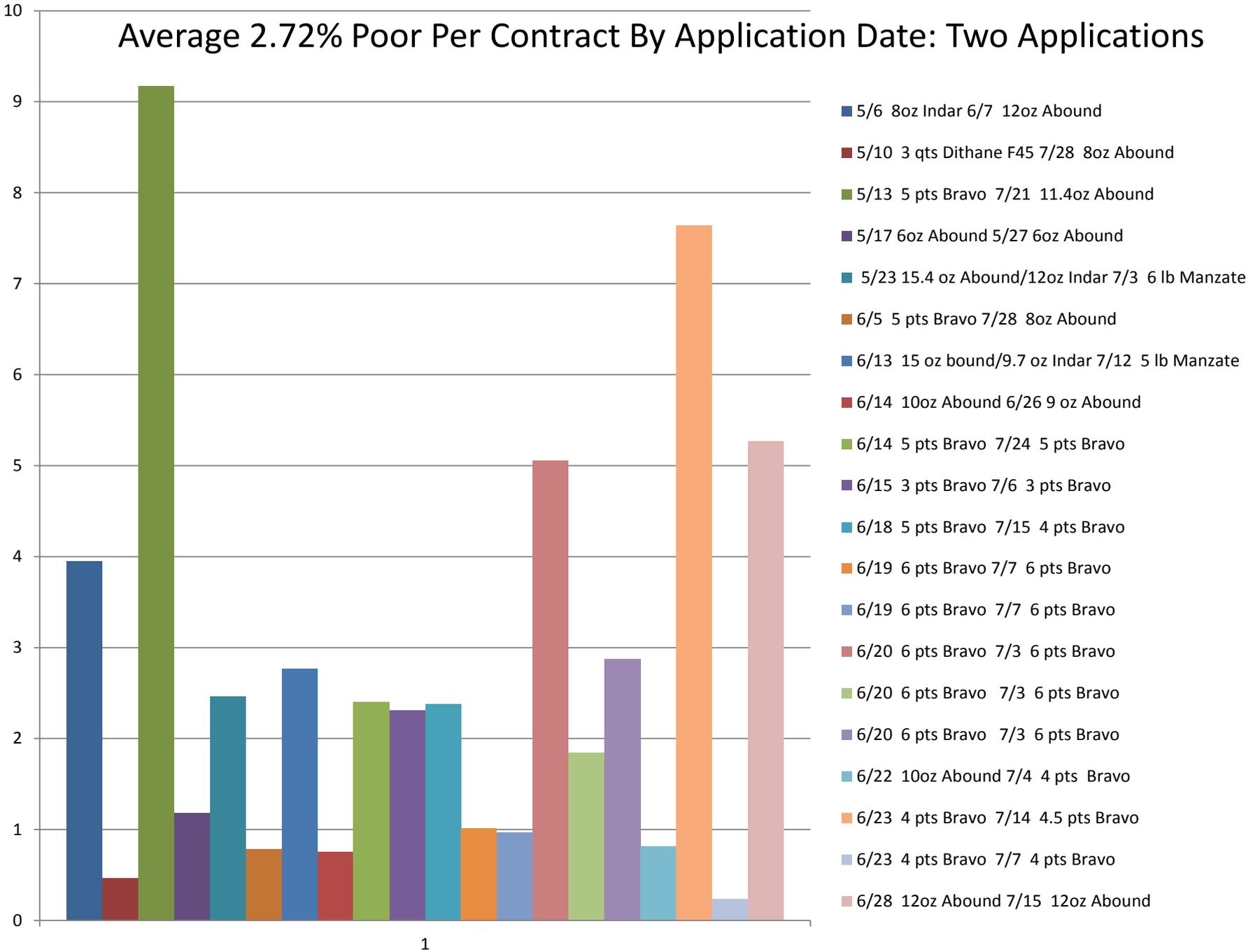
# Average 5.07% Poor Per Contract By Compare Other to Bravo: One Application



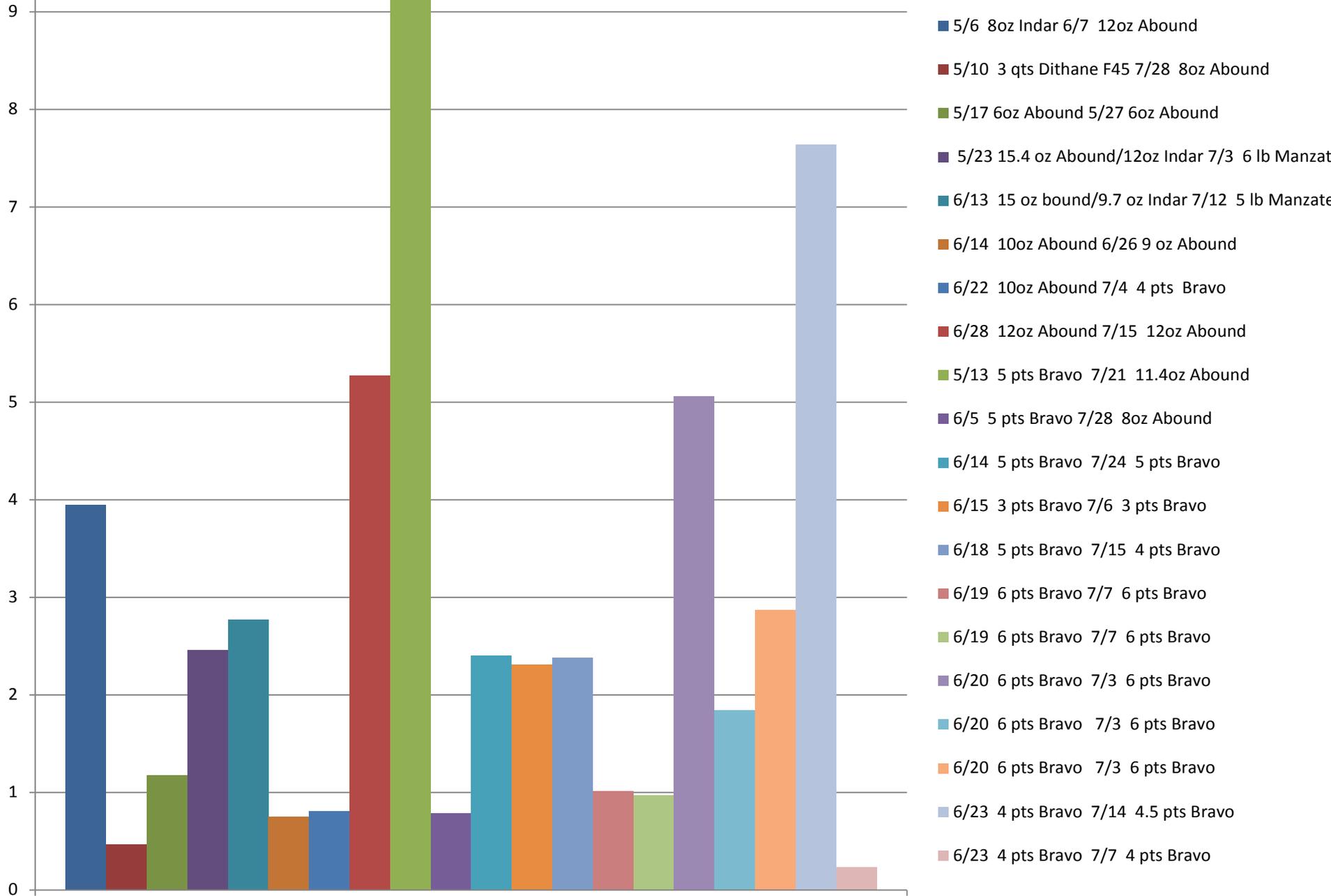
# Average 5.07% Poor Per Contract By Harvest Date: One Application



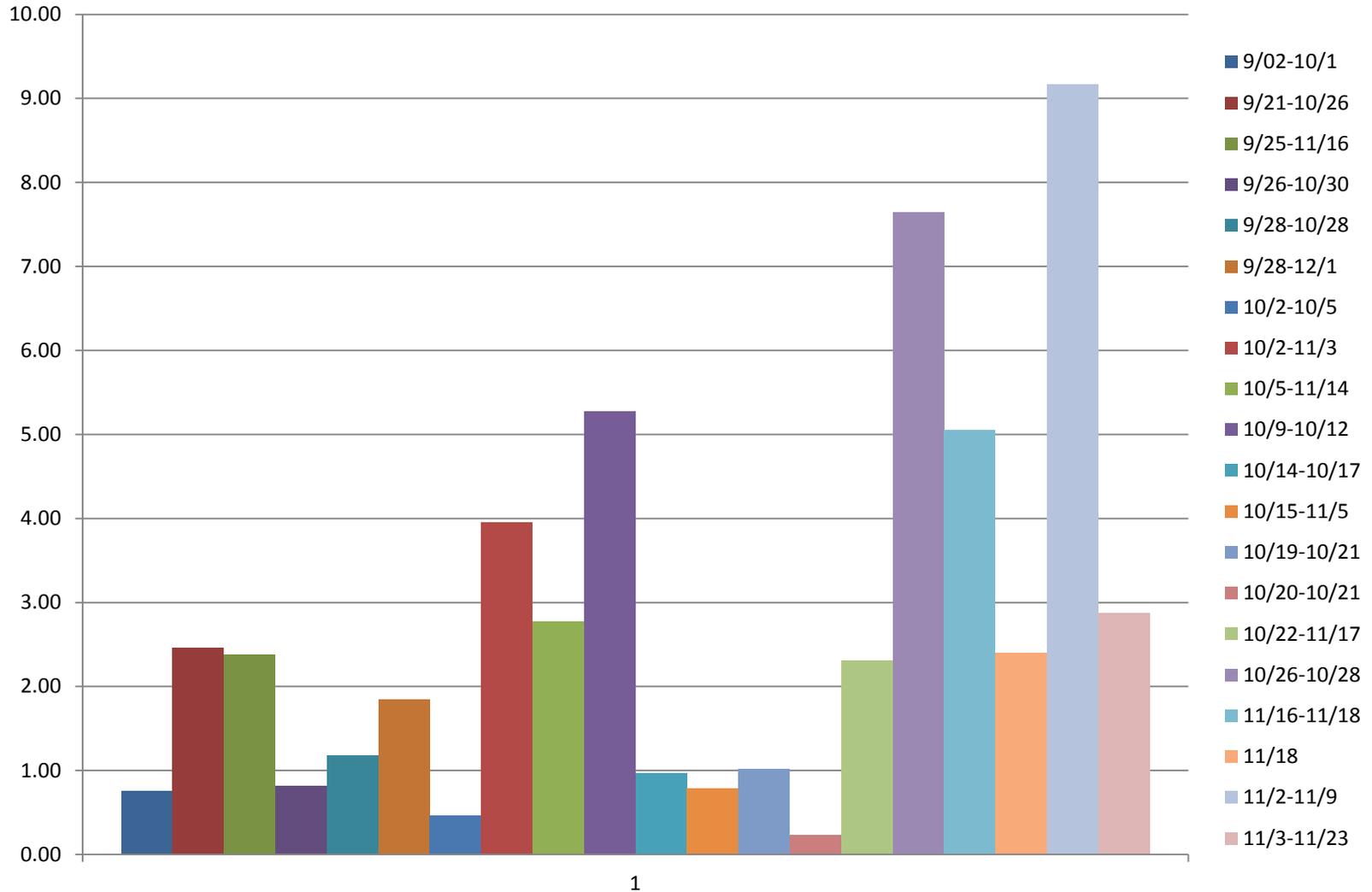
# Average 2.72% Poor Per Contract By Application Date: Two Applications



# Average 2.72% Poor Per Contract Other compare to Bravo: Two Applications

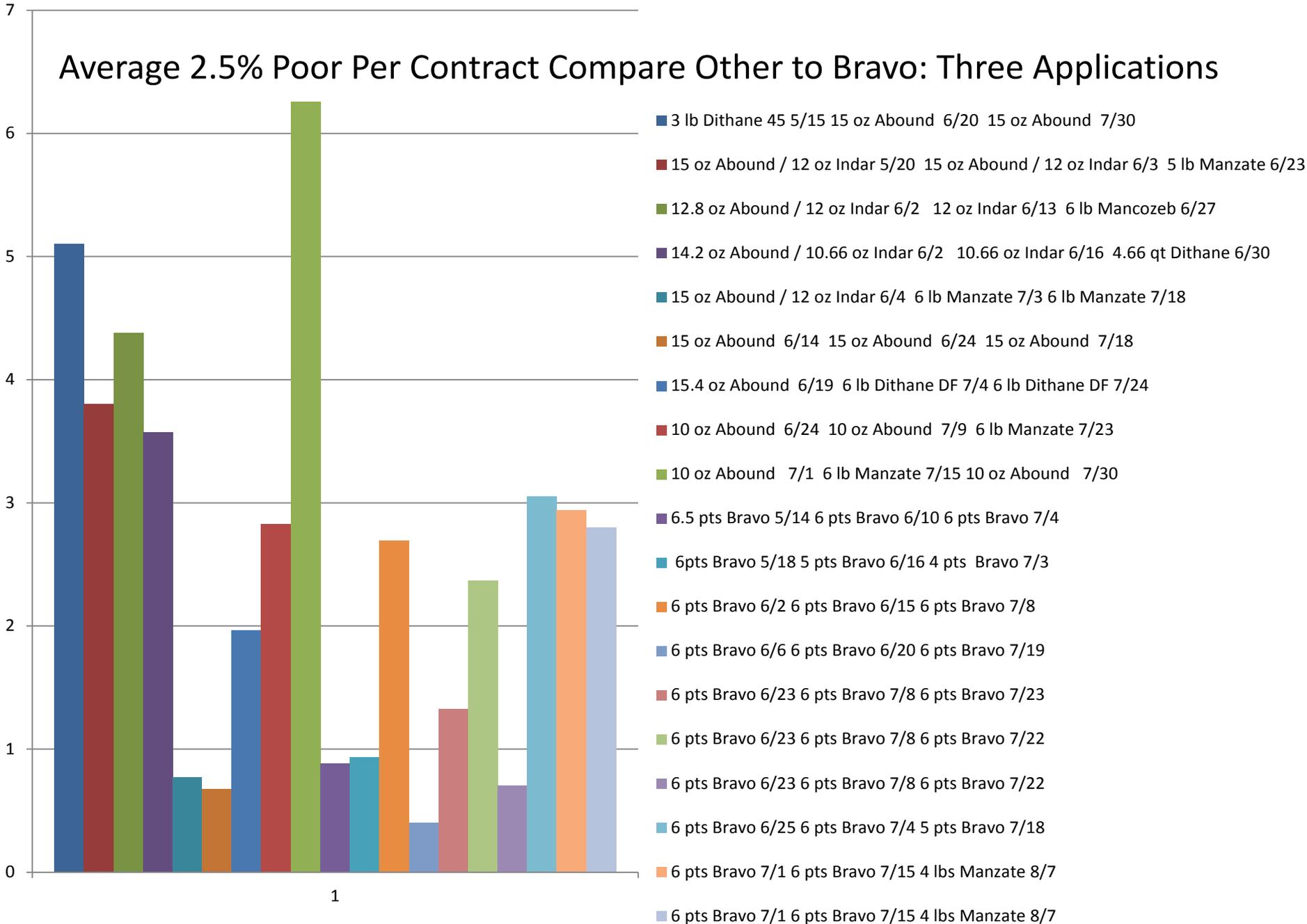


# Average 2.72% Poor Per Contract By Harvest Dates: Two Applications

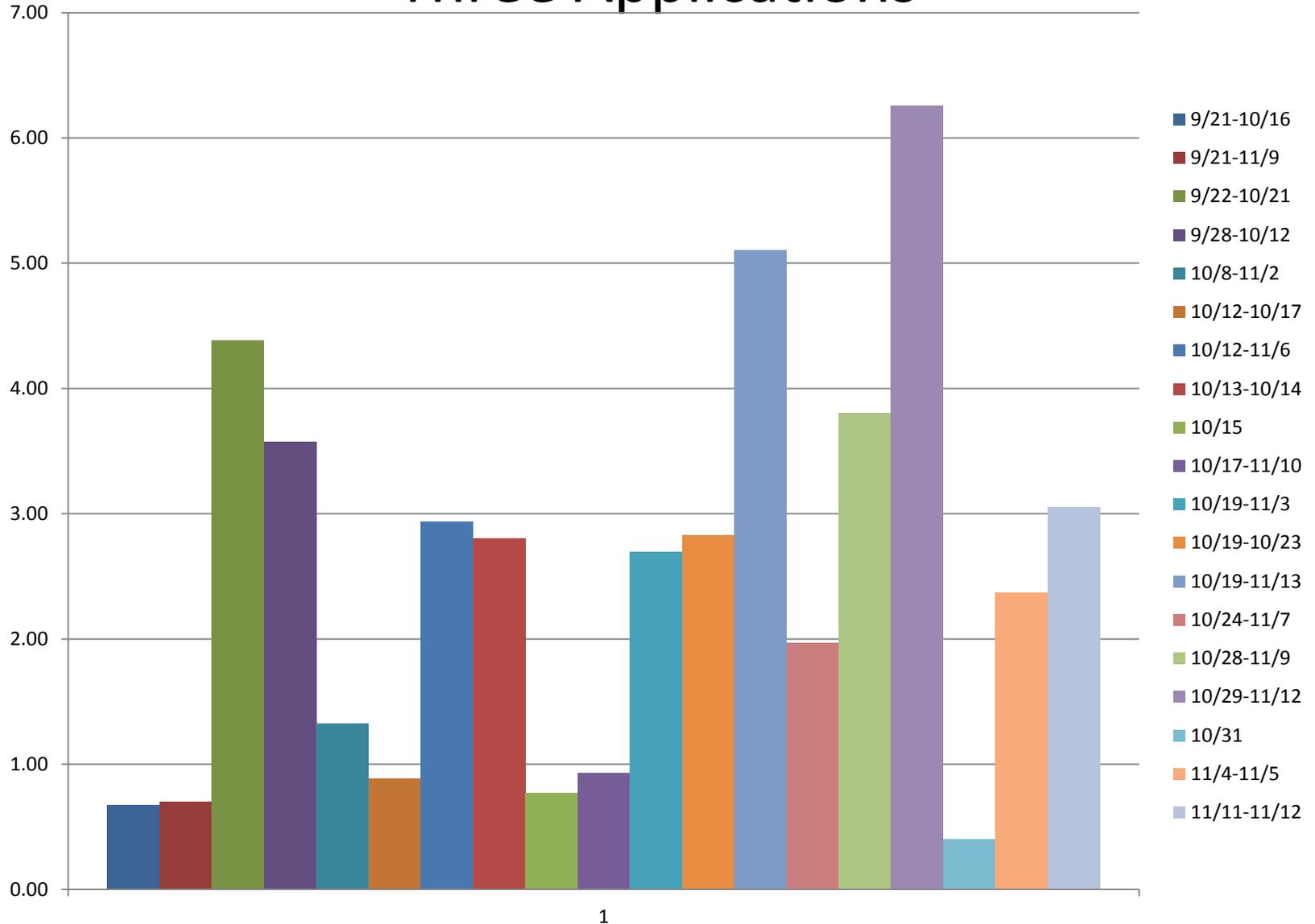




# Average 2.5% Poor Per Contract Compare Other to Bravo: Three Applications

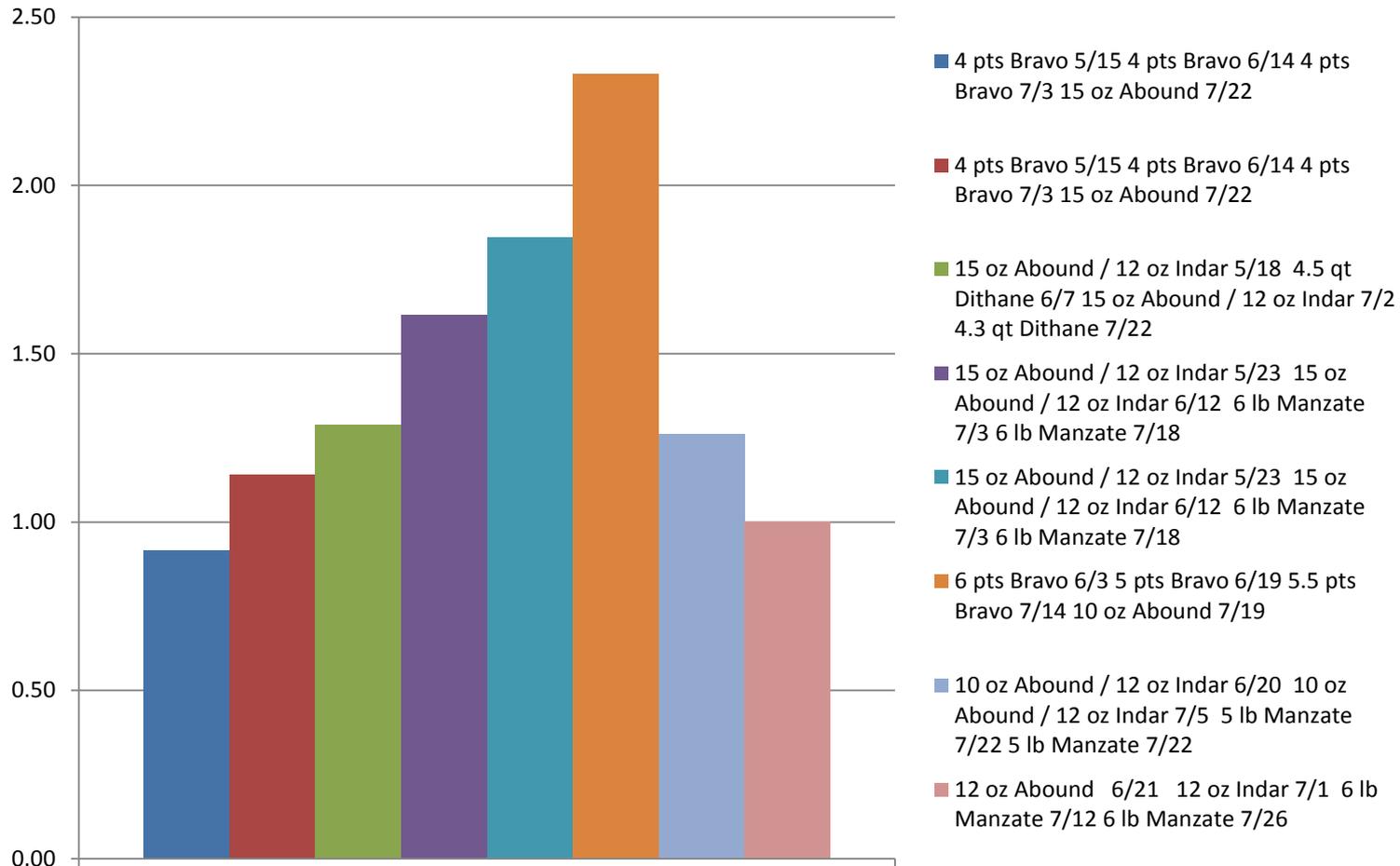


# Average 2.5% Poor Per Contract Harvest Dates: Three Applications



# Average 1.42% Poor Per Contract By Application

## Date: Four Applications



# Fruit Rot

- Disease pressure influenced by many factors:
  - Variety
  - Vine depth
  - Location – air flow, sun light
  - Buildup of inoculum/spores – old berries, leaves, trash, etc.
  - Irrigation timing-daily, every other day

# Fruit Rot

- Primary infection during bloom and early fruit set.
- Higher fruit rot pressure in individual beds may need greater number of fungicide applications.

# Fruit Rot

- If going to use new chemistry; start with the new chemistry.
  - Abound (11) – Evito(11) : Systemic
  - Indar(3) – Proline(3) : Systemic
  - Single-site mode of action
    - ❖ Bravo(M) – EBDC(M) = Dithane, Mancozeb, Manzate : Surface protectorate
    - ❖ Multiple-site mode of action

# Fruit Rot

- Should tank mix chemistries FRAC 3 and FRAC 11 to maximize fungicide protection and is the best practice for resistance management.
  - Indar doesn't work well on bitter rot disease but Abound does.
  - If planning on applying just a couple of applications best to tank mix.
  - If planning on applying multiple applications can separate materials per treatment, i.e., 7-10 day schedule.

# Fruit Rot

- First application early to mid bloom (15%), systemic or surface protectorate.
- If using new chemistry (tank mix): next application should go on 10-14 days later. If using older chemistry, or not tank mixing new chemistry; next application should go on 7-10 days later.
- Never apply fungicides at less than the registered rate, i.e., 6-12oz; don't apply less than 6oz.
- New chemistry: no more than two sequential applications, best not to apply more than twice a year.

# Fruit Rot

- Fungicides (especially protectorates) require consistent coverage of flowers, fruit, leaves and stems.
- Majority of rot infections occur during flowering.
- Fruit rot control completed by early fruit set, no reason to continue control beyond this time.

# Fruit Rot

- Reduce fruit rot
  - Cultural practices
    - Variety selection
    - Vine depth and density
    - Location – temperature, humidity, rainfall, air flow, sun light
    - Remove buildup of inoculum/spores – old berries, leaves, trash, etc. Trash flood.

# Fruit Rot

- Reduce fruit rot
  - Cultural practices
    - Irrigation systems, timing, uniformity
    - Drainage
    - Fertilizer timing and rates
    - Sanding – bury trash and inoculum
    - Efficient and effective applications of fungicides
    - Timing of harvest
    - Float time

# Questions?

