

# Fusarium Race-4 Upland Screening and Evaluation



Mike and Jim Olvey  
O&A Enterprises Inc.





DP357  
PIMA  
DELTAPINE

DP348  
REF PIMA  
DELTAPINE







# Industry Participation

- Over 7,000 Upland Lines Evaluated
- 5 Private Companies
- State Breeders
- Federal Breeders
- California Cotton Growers

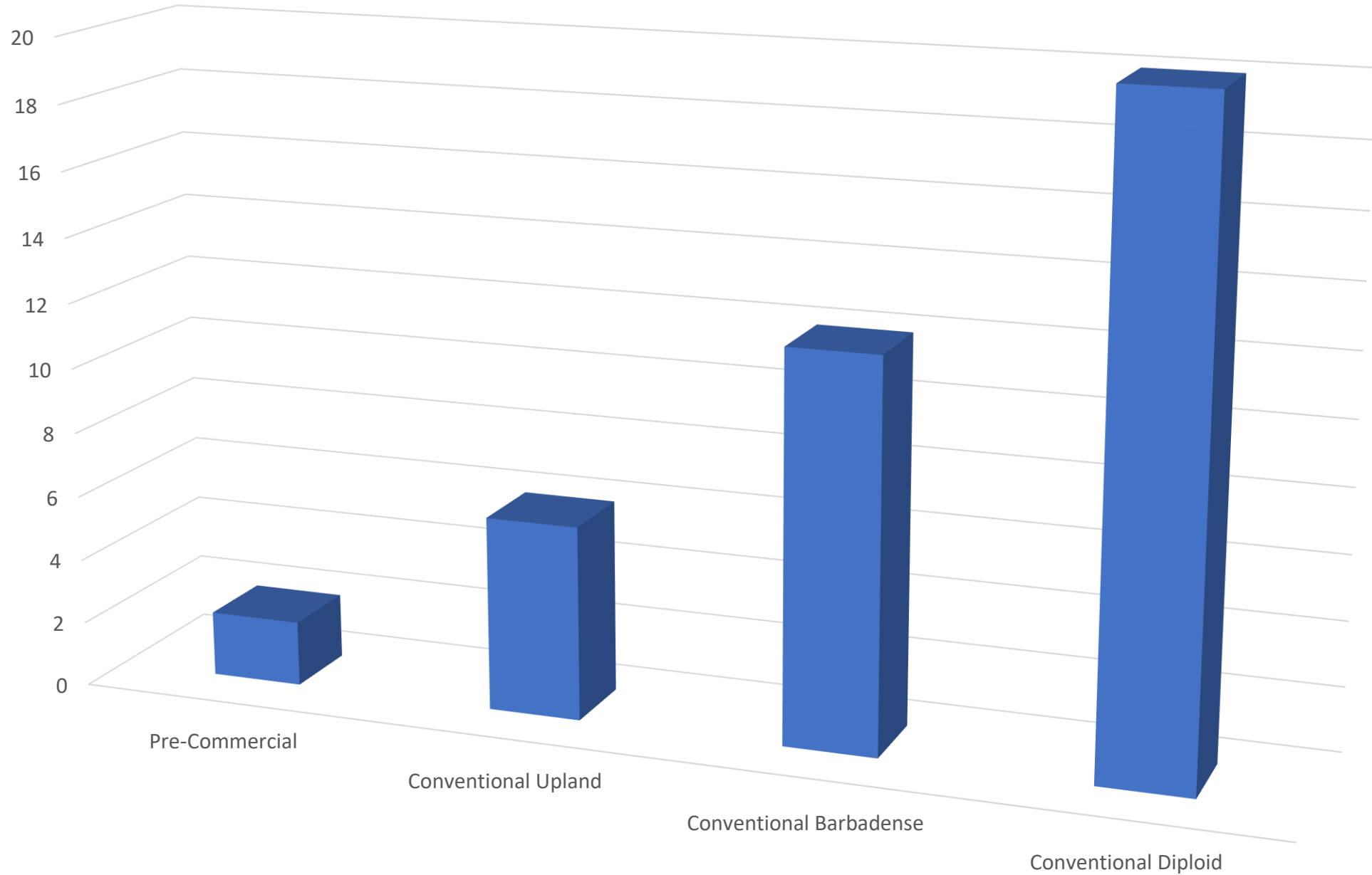


# Educate the Industry with Site Visits

- Explain our FOV-4 Screening and Evaluation process
- Provided Field Plans with their Entries
- Showed individuals their Entries



# Timeline: Years to Variety Farmers can Grow



# Testing Protocol

- Seedling Death
- Vascular Staining
- Yield Evaluation





# High vs. Low Spore Count Fields

• Spore Count	Variety	Plant Survival
• Low	DP 340 Pima	>40%
• High	DP 340 Pima	<5%



# FOV-4 Previous Resistance Claims

- SJV-01 through SJV-09
- MD-26ne
- MD 25-26ne
- NM 1004
- NM 1005
- NM 1015
- A2-190
- Bell-1



A2-190







# Cotton Incorporated FOV-4 Screening

- Screen 1,000 Upland entries using O&A's Site Specific Mass Screening (SSMS) protocol
- 10 Entries advanced to 2<sup>nd</sup> year screening
- 30x more checks from 1<sup>st</sup> to 2<sup>nd</sup> year testing

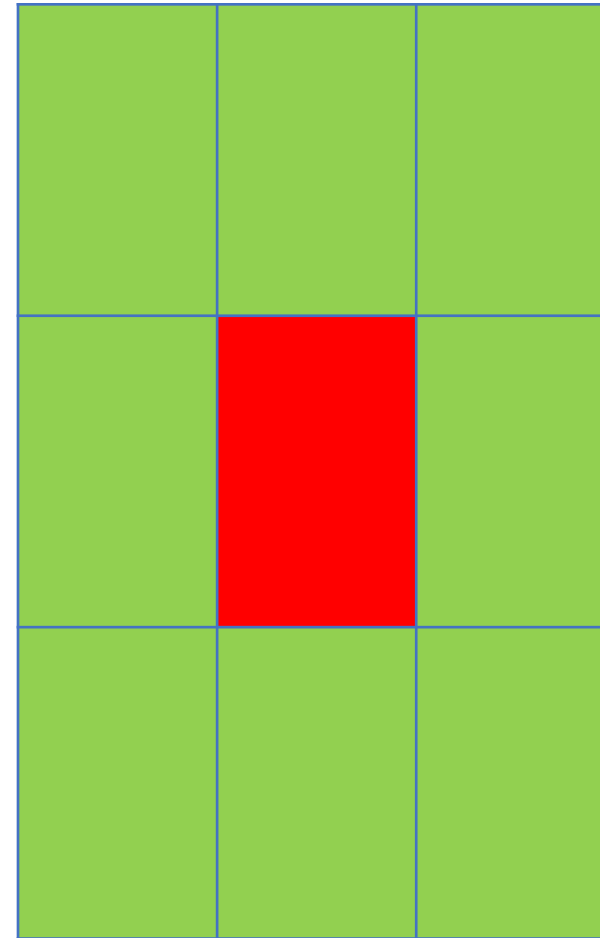
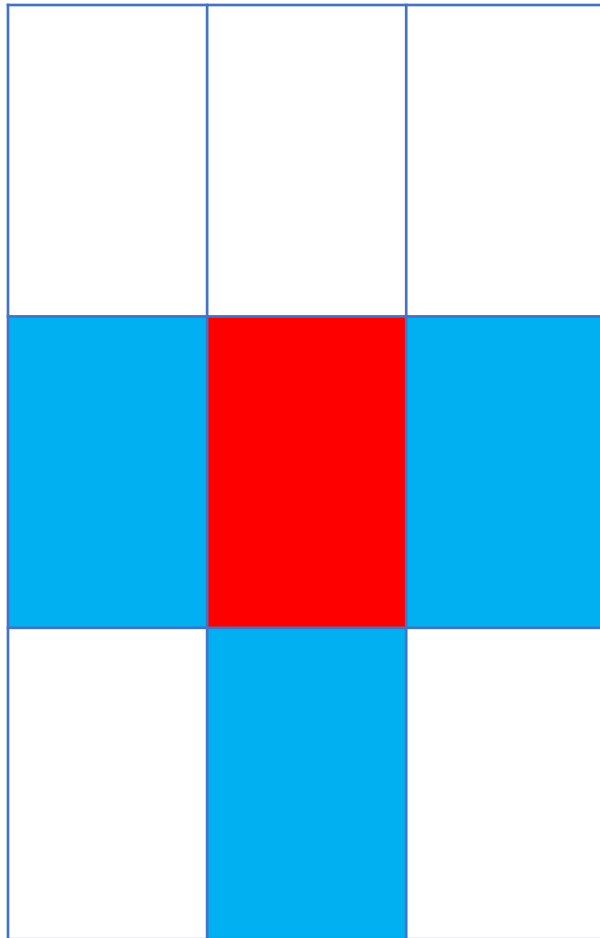








# 1<sup>st</sup> vs 2<sup>nd</sup> Year Plot Layout





Goal: Find Upland Varieties with the highest level of resistance to the Fusarium Race-4 disease and have the entire industry be able to Utilize these varieties as soon as possible.