

# 45 Years in the Field and in the Plant



# Get It Right

- “Integrity is doing the right thing even when no one is watching” C. S. Lewis
- “The time is always right to do the right thing.” Dr. Martin Luther King
- “Do the Right Things at the Right Time” .  
Bill B. Dean
- Do you ever wonder how long it will take to “Get it right” ?

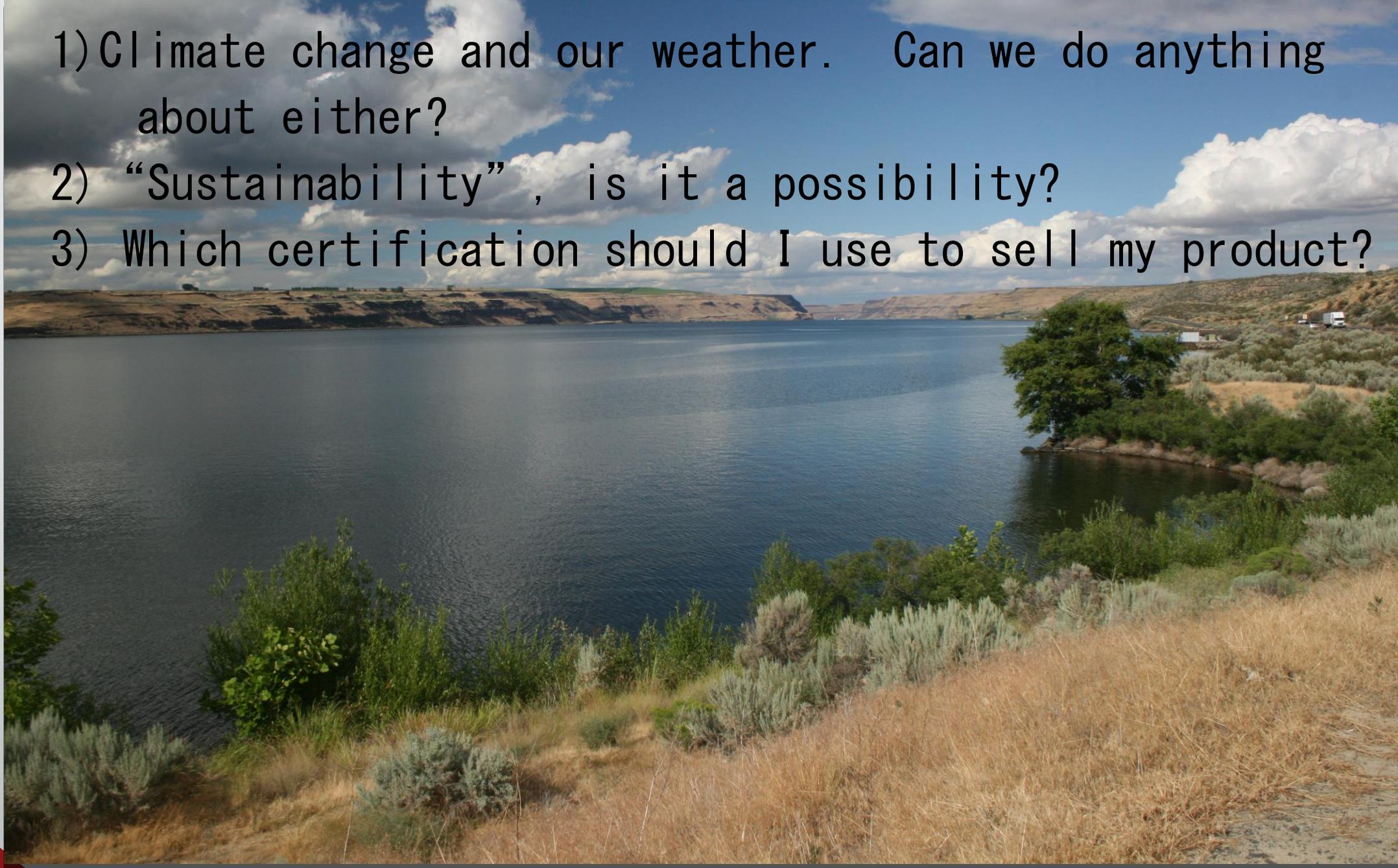
There have been times in my career that I wondered if I would ever “get it right” .



Then we would harvest a 50+ ton per acre (22MT/ha) onion crop!



- 1) Climate change and our weather. Can we do anything about either?
- 2) “Sustainability”, is it a possibility?
- 3) Which certification should I use to sell my product?

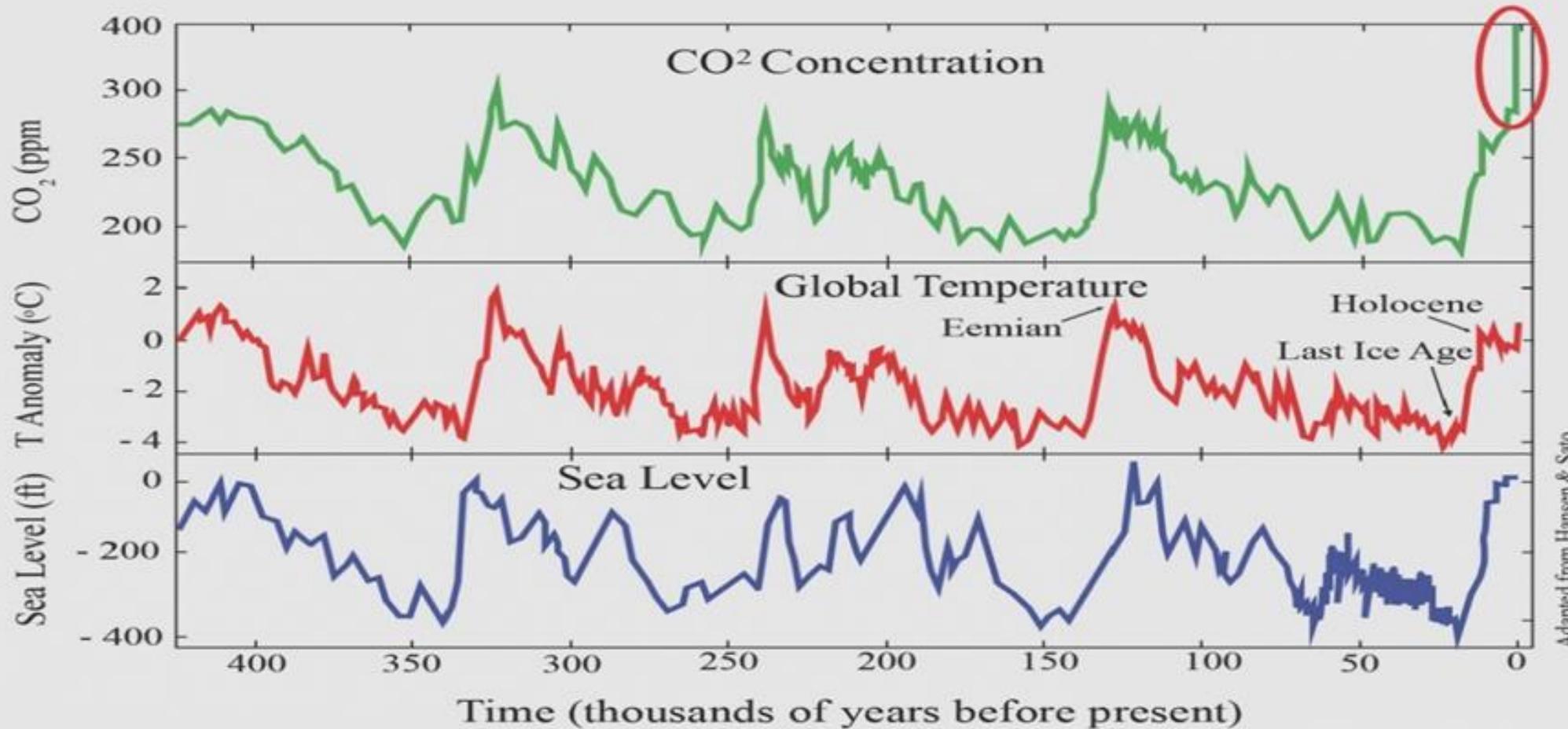


# Take Home Lessons

- We often say we cannot do anything about the weather. I think we actually do.
- We say we did the best we could.
  - Was it the right thing?
  - Was it at the right time?
- We say to the customer this is what I have to sell. Was it what they wanted?



# Changes in Global Temperatures, CO<sub>2</sub> Concentration and Sea Level Rise during the past 420,000 years



Adapted from Hansen & Sato

# Right Thinking about Climate Change?

- There is little disagreement of whether or not global climate changes are occurring. However, these changes are over very long periods of time. It is hard to imagine how we can incorporate these changes into an action plan even on large operations such as River Point Farms. But we must try.



So what? What is the right thing to do about climate change?

- Go to a climate change conference?
- Stage a sit-in at a government office?
- Protest in the streets (for or against)?
- Stop using non renewable sources of fuel (or not)?
- Pay attention to your operations “Life Style”

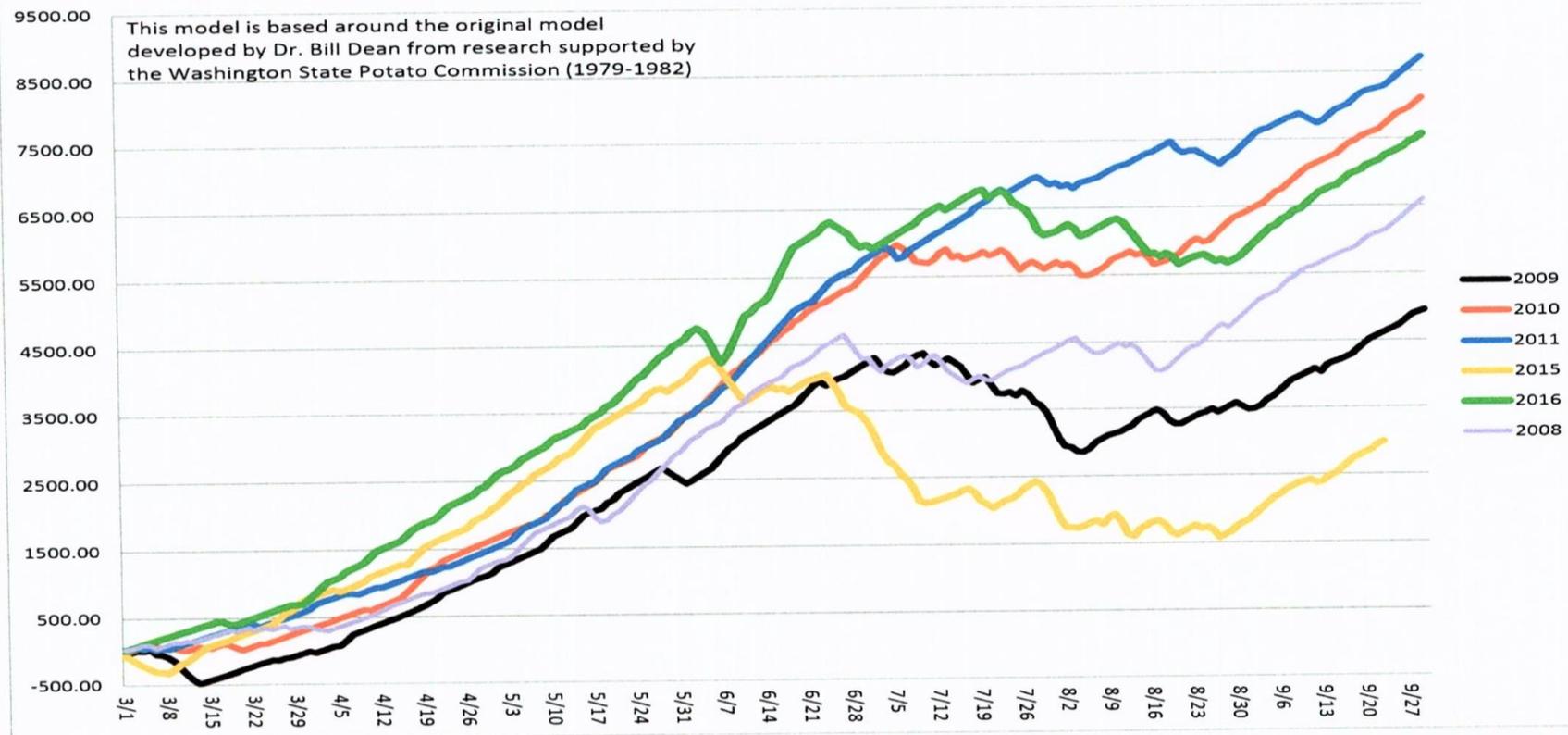
# Farming and short-term weather.

- I believe that what we should focus on are the changes in temperatures over a much shorter time period. Not thousands of years, but over days and weeks.
- That time period is the coming onion growing season and how we might react to short-term temperatures variations.
- What can we do right regarding weather?

# How can we respond to weather?

- My career has been focused on growing potatoes (>12,000 acres) and onions (>5000 acres) as well as smaller acres of asparagus, peppers, carrots and squash during the past 45 years.
- I have produced these crops using both conventional and organic systems.
- As a research scientist, I have also dedicated about half of my career to understanding how crops respond to various environmental stimuli (weather) and to grower inputs.
- The following example is from my research on potatoes.

## Potato Growing Season Quality GVF Pasco



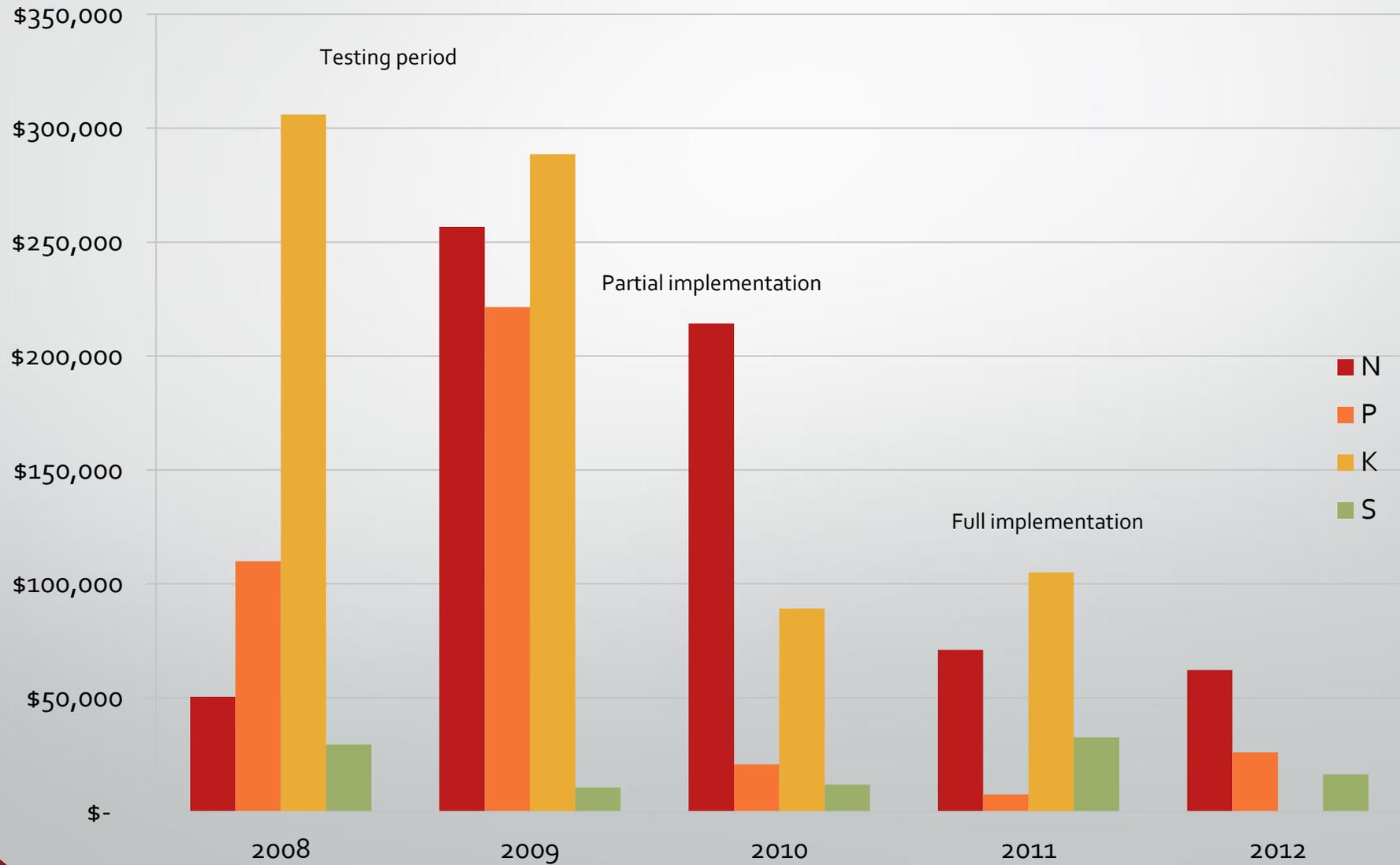
Growing season date

# What do we do about the Weather?

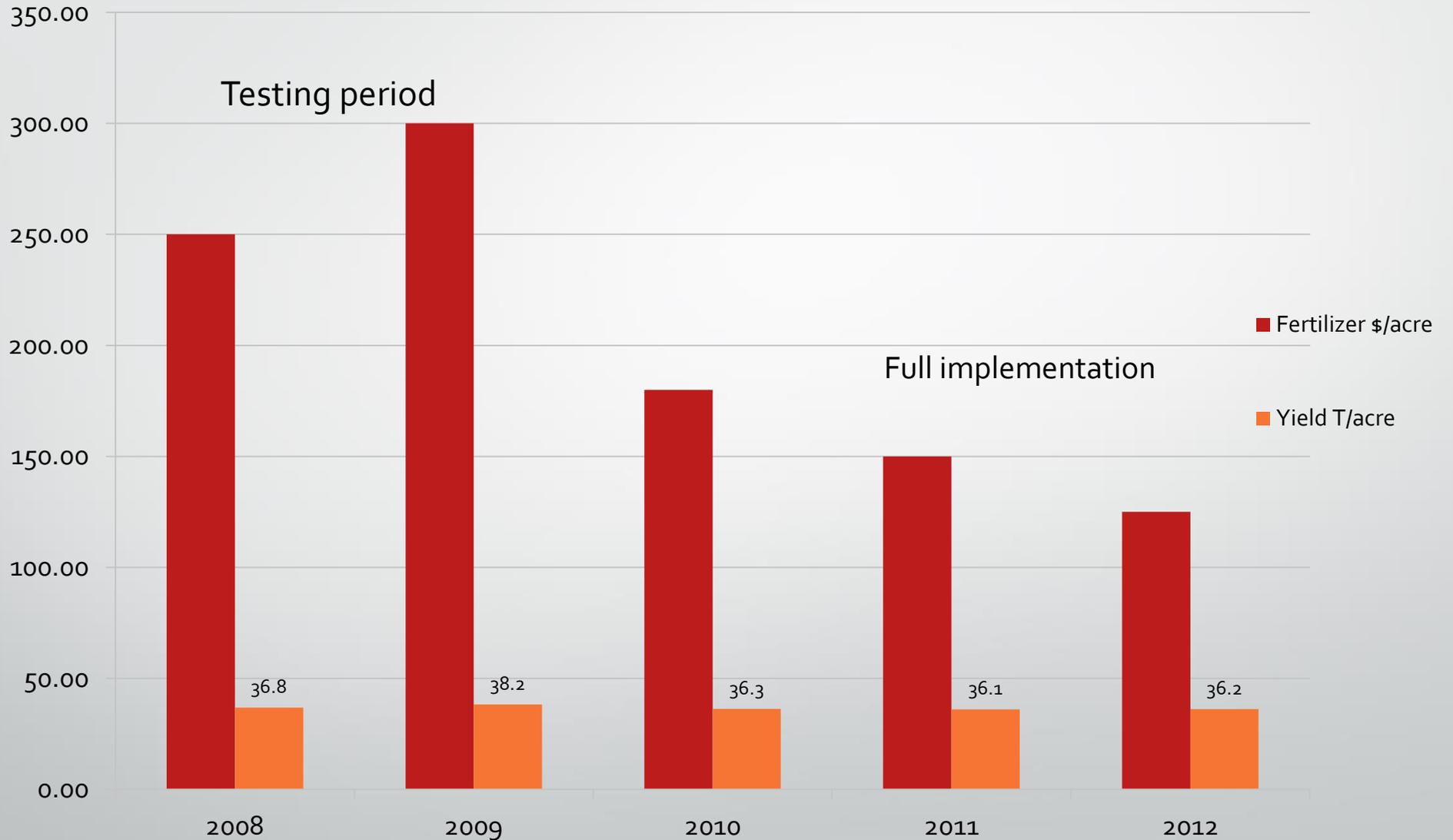
- Variety testing for adaption (200 cvs per year, 3–5 years)
- Fertilizer/nutritional needs (5 years of tests)
- Pest control (ongoing)
- Tillage and erosion control (modified constantly)
- Real-time soil moisture monitoring and irrigation scheduling (2–3 years)
- Shading to prevent greening or sunburn (3 years of tests)



# Appropriate resource utilization (sustainability) Timing of nutrients to reduce stress?



# Reduce Costs only if Revenue Makes Sense!



# Water; timing and amount

- Avoid crop stress (weather)
- Approximate ET (weather)
- Prevent leaching (water holding capacity and water application rate) for environmentally sound programs



# Sustainability is a system

- Economic Viability
  - Marketable product
  - Right customers
    - Economically competitive
- Socially accepted practices
  - Good Agricultural Practices (GAP or GGAP)
  - Food Safety (FSMA, GFSI)
  - Employee care (Worker Protection)
- Environmentally sound resource utilization
  - Protect surface and ground water





## What we do at RPF

- Onion growing, packing and processing company (The product)
  - Approximately 5000 acres (2000 ha)
  - 175,000MT (competitive pricing)
  - 60% red onions 40% yellow onions (customer demand)
- Over-winter planting in the fall (August/Sept)
- Spring seeded and transplants (March/April)
- Harvest from June 15 through October 10
- Storage from October through June (availability)

# Chose the right certifications for promotion of your product.

- Food safety (Global GAP)
  - Clean operation
    - clean water (low /zero bacteria counts,
    - heavy metals and other contaminants)
  - Proper resource use
  - Good Management Practices (GMPs)
  - Optimize hygiene



# Labeling



- Certification and its meaning
  - Organic : a philosophy of growing practices
  - Pesticide residue content or absence
  - Sustainable Generally agreed upon practices.

- Non GMO (no genetically modified organisms)  
Nutrient content (approximate nutrients)  
Gluten free (dietary restrictions)
- Using appropriate testing (right thing)
- Abiding by the rules (Integrity)



## Summary:

Doing the right thing “with integrity” when no one is watching means you don’ t have to worry when someone is watching (auditors or customers).

- Climate is not under your control but do right by it.
- You can modify production techniques based on weather
  - Right evaluations, crop scouting, soil sampling
  - Right, timely decisions
- You can develop a sustainable production scheme
  - Just take it one step at a time
- You need to meet consumer requirements even if you don’ t fully agree
  - The customer is always right!
- Certification is an assurance to customers that you followed the rules
  - You did the right things
- Integrity is your most important key to sustainability



Thank you for the opportunity to  
speak with you today!

- Dr. Bill B. Dean (Consulting Agronomist, River Point Farms)