

# BREWING BIOGAS

34<sup>th</sup> Annual  
Spring Biosolids Symposium  
Chris Lefebvre



# Stevens Point WWTP

- **Plant Details**

- 4.55 MGD (design)
  - 2.805 MGD (2015 average)
- EBPR
  - A/O with RAS Denite
- Anaerobic Digestion
  - Mesophilic (735,000 gal)
- Service Area
  - 27,000 Population
  - BOD Population Equivalent of 54,000





# 2015 Average Analytical Data

- Influent

- BOD – 389 mg/L

- TSS – 358 mg/L

- Total P – 5.8 mg/L

- Effluent

- cBOD – 5.33 mg/L

- TSS – 6.53 mg/L

- Total P – 0.47 mg/L

# Received Wastes in 2015

- **Septage**

- 9,834 gallons/day
- 607 lbs BOD/day
- 840 lbs TSS/day

- **Holding**

- 5,060 gallons/day
- 109 lbs BOD/day
- 165 lbs TSS/day

- **Digester Feed**

- 8,827 gallons/day
- 5,333 lbs BOD/day
- 3,665 lbs VS/day





# Reasons For Co-Digestion



- Properly Treat Wastes
- Reuse of Resources
- Utilization of Existing Capacity
- Removes Loading from Aeration

- Produces Valuable Biogas
- Power Generation
- Generates Revenue
- Grant Availability



# Selecting Co-Digestates

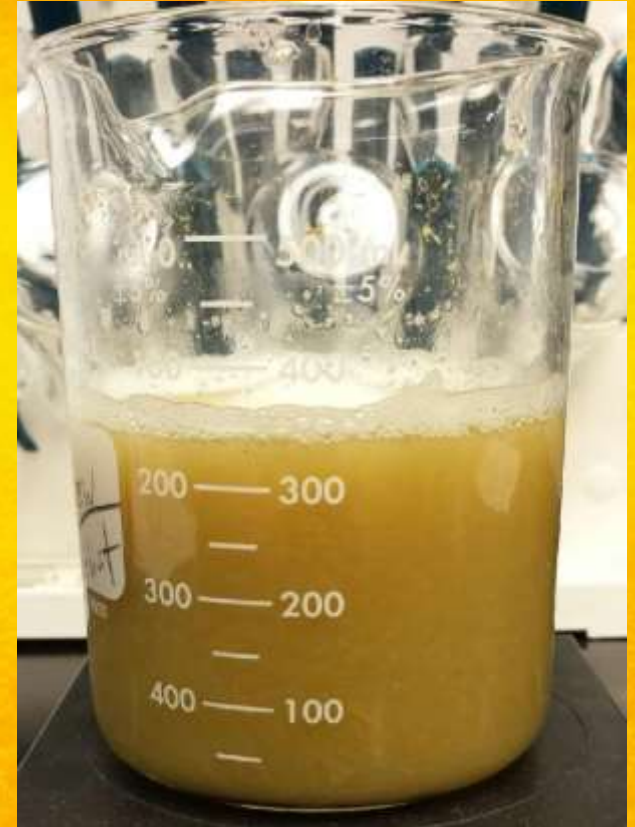
- What is Available
- Analytical Data
- BMP Testing
- Trial and Error
- Golden Bullet Wastes





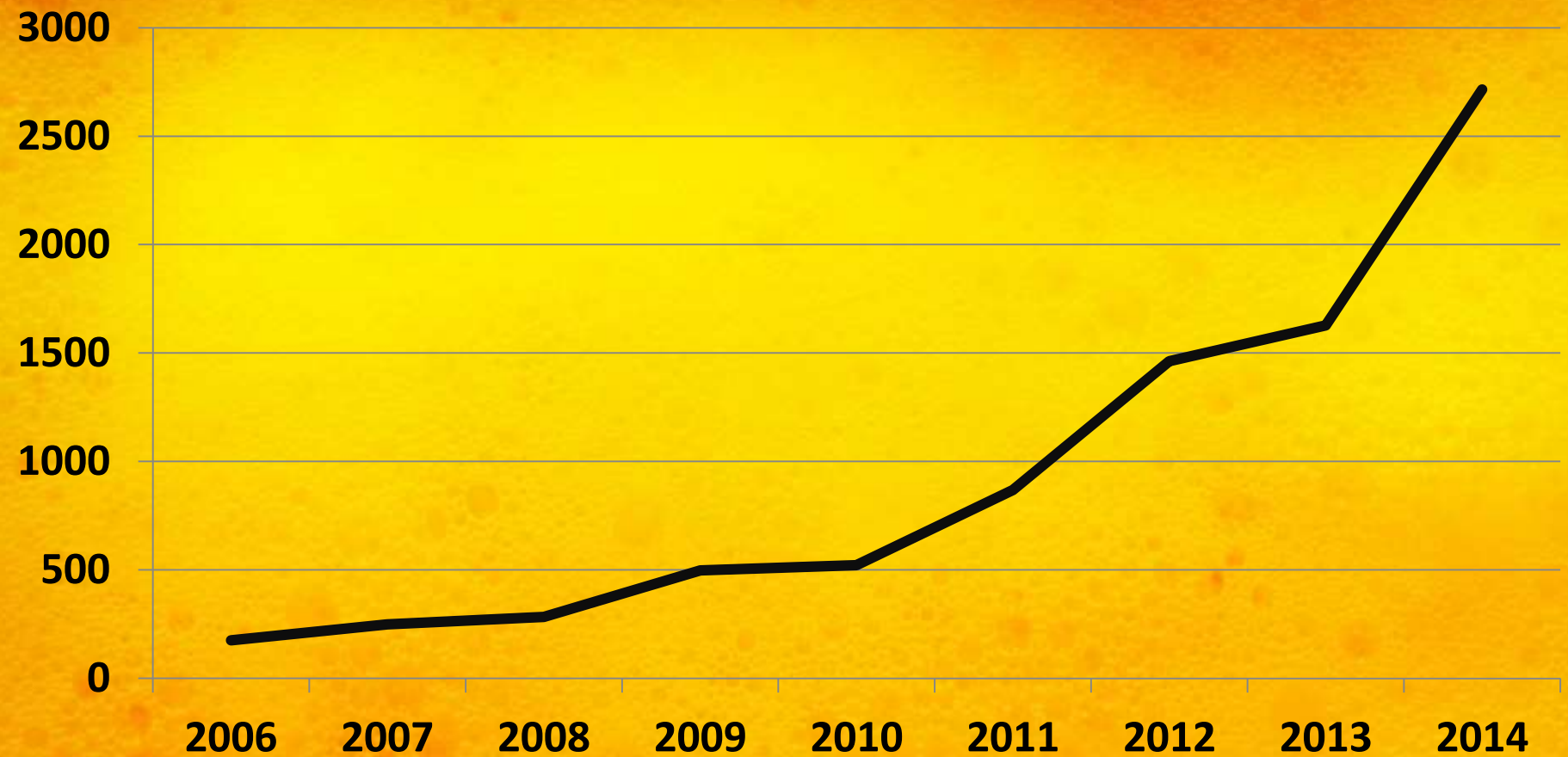
# Stevens Point Brewery

Operations Prior to April 2015



# Brewery Loadings 2006-2014

BOD Lbs/day





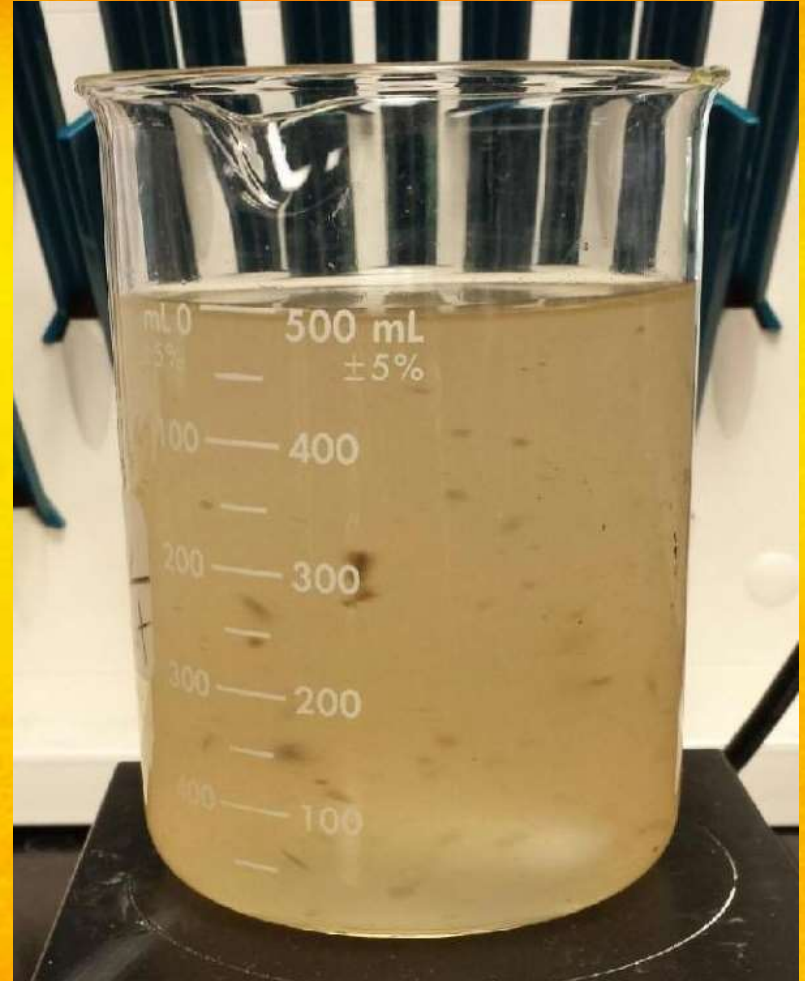
# Brewery HSW Project





# Brewery HSW Project

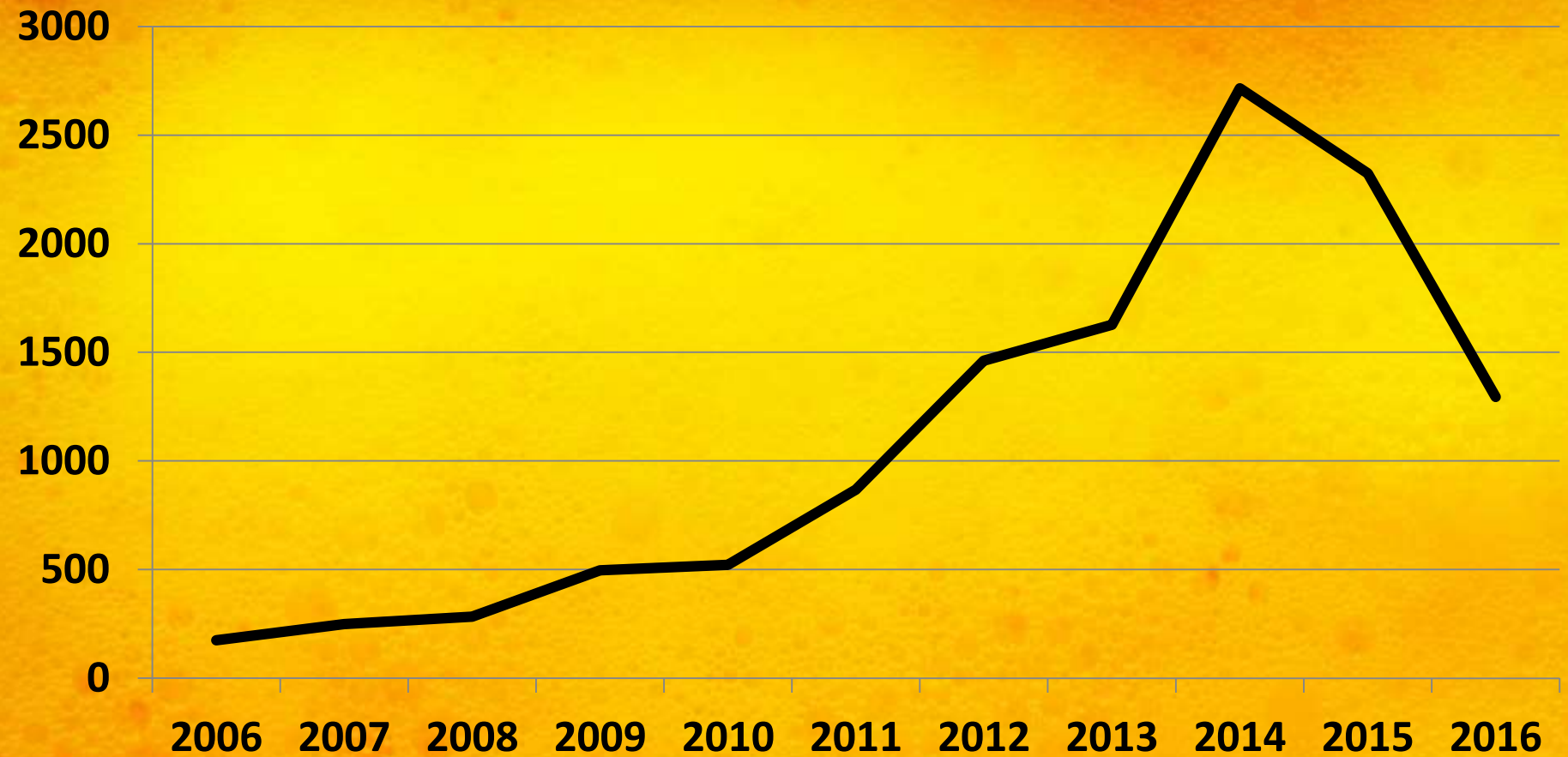
Operations after April 2015





# Brewery Loadings 2006-2016

BOD Lbs/day

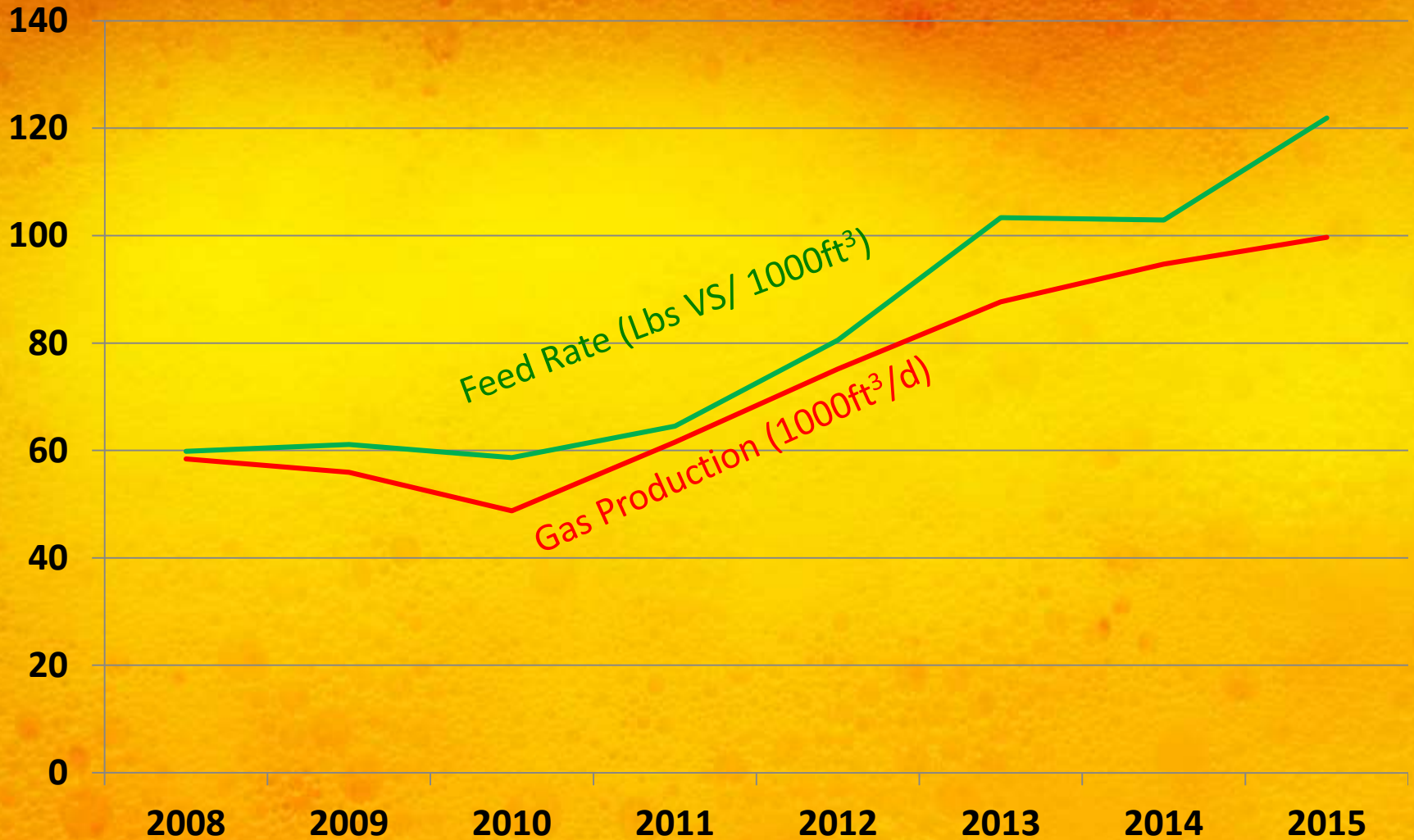


# High Strength Receiving Area





# Effects of HSW Addition



# Too Much of a Good Thing

- Average Feed Rate 120 lbs VSS / 1000 cu ft digestion
- Overfed at 286 lbs VSS / 1000 cu ft digestion





# Other Factors to Consider

- Trucked in Wastes are Highly Variable
- Most Wastes Have Foreign Material
- Increased Side Stream Loading
- Increased Biosolids
- Increased Employee Work Load

# Keys to Our Success

- Dedicated Staff
- Political Support
- Relationships with Producers and Haulers
- Learning from Failures



# Cheers!

Chris Lefebvre

Stevens Point WWTP

[clefebvre@stevenspoint.com](mailto:clefebvre@stevenspoint.com)

