



Anaerobic Digestion and Methane Capture in Industrial Waste Operations

presented by:



Methane to Markets
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Types of Industries that can use anaerobic digestion

- Palm Oil Processors
- Sugar Beet Processors
- Sugar Cane processors
- Ethanol Plants
- Slaughterhouses
- Meat processors
- Vegetable Processors
- Potato – caning, French fries, dehydrated
- Breweries
- Soft drink bottlers
- Distilleries
- By-product processors



Industrial waste water requirements

- Characterize waste water – every location is different
- Lab testing of samples is required
- Waste water flow must be measured
- Anaerobic digester is only one part of the waste water treatment process



Griffin Industries



- Griffin Industries recycles meat and poultry by-products, grocery scraps, restaurant grease, and waste from the bakery industry
- These by-products are recycled into fats, oils, proteins, alternative fuels, leather goods, organic fertilizers and methyl esters that are synonymous with quality in the petfood, animal feed, industrial/chemical, petroleum, leather and turf industries
- We installed an 100 mil HDPE Impermeable Cover.



Griffin Industries



Griffin Industries



Bruce Foods



- Bruce Foods had been manufacturing original Cajun and Tex Mex food products for more than eighty years. They also are a big producer of potato flakes and sweet potato products.
- They manufacture more than 350 food products under nine premium brands. Known for their Louisiana hot pepper sauce, Bruce's Yams and Casa Fiesta Mexican food items.
- We have installed impermeable and permeable covers on their plants in North Carolina and Louisiana.



Bruce Foods. Louisiana



Bruce Foods. North Carolina



National Beef



- National Beef is a part of US Premium Beef Company. They have been providing quality beef to customers across the US for more than 40 years.
- National Beef has 10 product lines from Organic beef to the Prime Angus beef.
- We installed an impermeable cover on their Brawley plant in California.



National Beef. Brawley, California



Sun Maid Growers



- Sun-Maid has served consumers and customers since 1912 by providing premium quality raisins and dried fruits from the raisin and fruit farms of California to homes and eating establishments around the world.
- We installed an impermeable cover on their site.



Sun Maid Growers



Tyson Foods



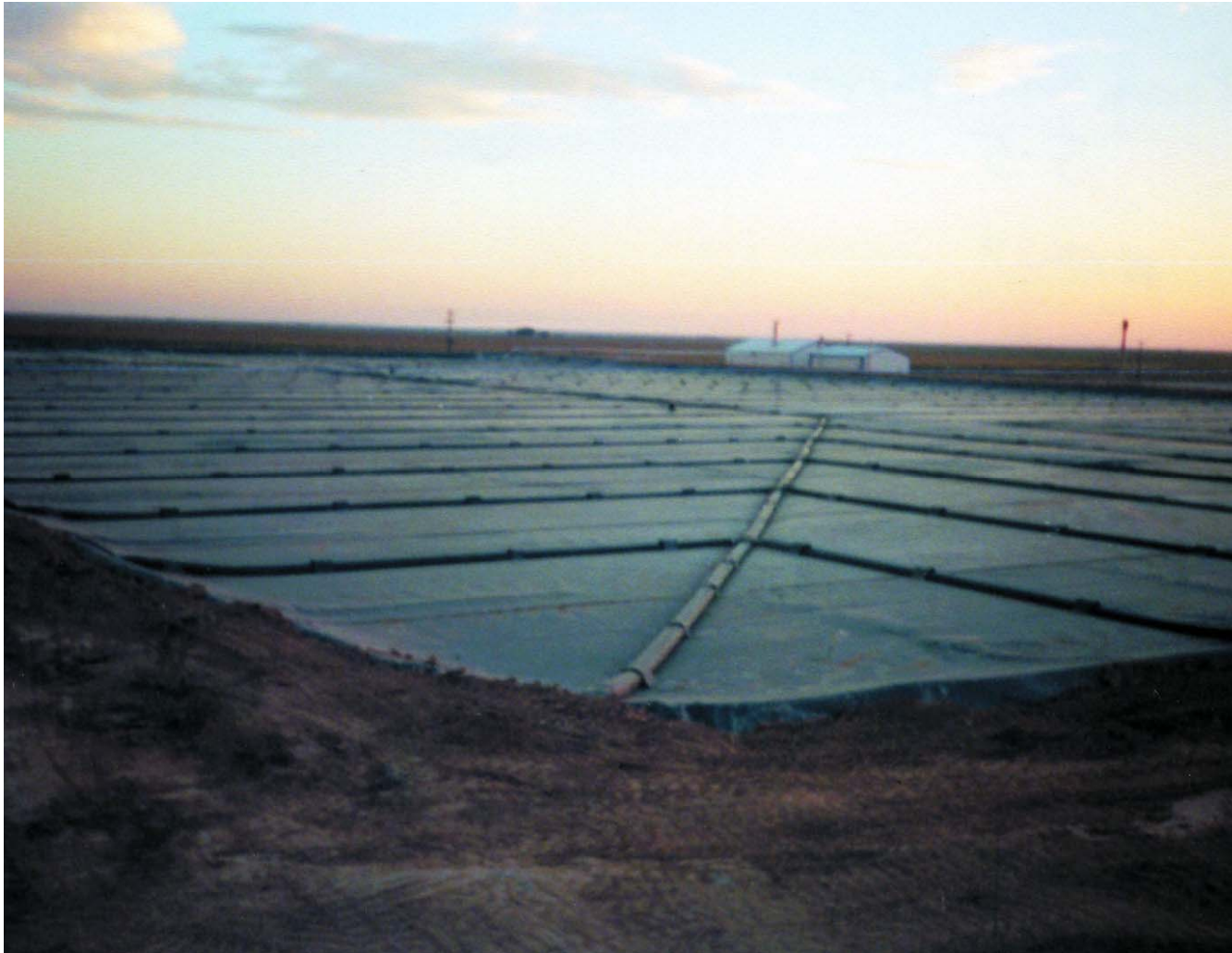
- More than 60 years have passed since John Tyson drove his battered truck to Chicago to deliver a load of 500 Arkansas chickens.
- Tyson specializes in Chicken, Pork and Beef products and has operations around the world.
- We have done many projects for Tyson. We are highlighting our work in Nebraska and a 7 cover job in Amarillo, Texas where currently 6 of them are producing biogas and one is used for aerated water treatment.



Tyson Foods. Texas



Tyson Foods. Texas



Tyson Foods. Nebraska



Tyson Foods. Nebraska



American Crystal Sugar



- American Crystal Sugar Company is a world-class agricultural cooperative that specializes in sugar and sugar-based products and by-products
- We installed an impermeable cover on their Moorehead plant in Minnesota.



American Crystal Sugar



Abita Brewery



- Brewery located right outside of New Orleans
- Founded in 1986
- Its product line includes Amber, Light, Golden, Turbo Dog, Purple Haze and Seasonal Beers.
- We installed a cover over the steel tank where organic wastewater is contained.



Abita Brewery

