

Bionergy and Bioproducts Education Program: Summer Institute 2014

	Monday 7/21	Tuesday 7/22	Wednesday 7/23	Thursday 7/24	Friday 7/25
9:00-10:45am	Welcome and Workshop Overview Introductions: Biomass to Biofuels and Bioproducts Tiffany Fleming (BTI) <i>Atrium</i> Biofuels Pipeline Tiffany Fleming	Why Cellulosic Crops?: Plants-to-Sugars Introduction Dr. Shawn Kenaley (BTI) <i>Atrium</i>	8:15 AM* Field Trip: Big Flats, NY Perennial Biofeedstock Energy Tour	Texas A&M group - Microfluidics Chips for Screening Oil processing Algae <i>TBA</i>	9:00 - 10:00 AM Biofuels in Your Community Role Pay Tiffany Fleming (BTI), Brian Tobin, & Tanay Watson <i>Atrium</i>
10:45-11:00am	Break	Break		Break	Break
11:00-12:00pm	The Trials and Tribulations of Large Scale Algae Farming for Biofuel Production Dr. Beth Ahner (Cornell) <i>Atrium</i>	Bioenergy Garden Dr. Shawn Kenaley (BTI) <i>Teaching Lab 218</i>	9:30 AM - 12:30 PM Lunch, 12:30 - 1:15 PM	Biodiesel Lecture Dr. Shawn Kenaley & Shannon Murphy (BTI) <i>Teaching Lab 218</i>	10:15 AM - 12:00 PM Teachers Present Unit Integration Plans <i>Atrium</i>
12:00-1:00	Lunch BTI Business	Lunch Check Enzyme Lab, seed germ.		Lunch Check Enzyme Lab, Seed germination	Lunch
1:00-2:00pm	Sustainability & Systems Thinking Tiffany Fleming (BTI) <i>Atrium</i>	Mining for Chocolate Tiffany Fleming (BTI) <i>Atrium</i>	Switchgrass gemination: cultivar and pH Dr. Shawn Kenaley (BTI) <i>Teaching Lab 218</i>	Biodiesel Laboratory Dr. Shawn Kenaley & Shannon Murphy (BTI) <i>Teaching Lab 218</i>	BBEP Teacher Alumni Integration Projects Casterline, LaCelle, Mackey <i>Atrium</i>
2:00-3:00pm	Algae-to-Biofuel Drs. Shi-Chi Hsu and David Stern (BTI) <i>Atrium</i>	Grass-to-Sugars Dr. Shawn Kenaley (BTI) <i>Teaching Lab 218</i>	Return to housing: wash and change of clothes	* Lab Clean-up *	Classroom Materials Give Away School Year Follow-up <i>Atrium</i>
3:00 -3:15	Break	Break - Depart to Biofuel Lab	Break	Break	Lab Clean up
3:15-4:00pm	Laboratory Safety (20 min.) Dr. Shawn Kenaley (BTI)	Tour: Biofuel Conversion Laboratory Ed Evans (Cornell) <i>Biofuels Research Laboratory</i>	3:30 - 4:30 PM Seminar: Merging Multidisciplinary education and research Dr. David Stern (BTI) Dr. Arum Han (Texas A&M Univ.) Dr. Tim Devarenne (Texas A&M Univ.)	Bioproducts Activities Kim LaCelle, Kelly Mackey, and Tiffany Fleming <i>Atrium</i>	Program Evaluation
4:00-4:30pm	Algae-to-Biofuels: Photobioreactor Laboratory Dr. Shawn Kenaley (BTI) <i>Teaching Lab 218</i>		*Social with refreshments to follow*	Unit Integration Work Time	
4:30-5:00pm	Reflection: Sustainability footnotes, present and future. <i>Atrium</i>	Unit Integration Plan Tiffany Fleming (BTI). <i>Atrium</i>	5:00 PM: collect seed germination and grass-to-sugars data		
Evening	Assigned Readings: Primer Reading: Biomass review, liquid biofuels, and logistics	Assigned Readings: Role Play Biodiesel Coming to Town	Team building: Dinner Out <i>Agava</i>	Reflections Return unused parking permits Friday morning	