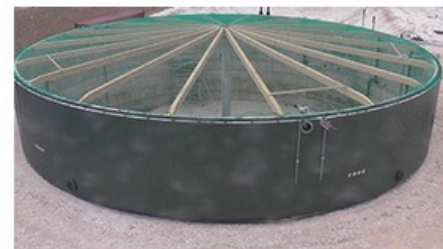
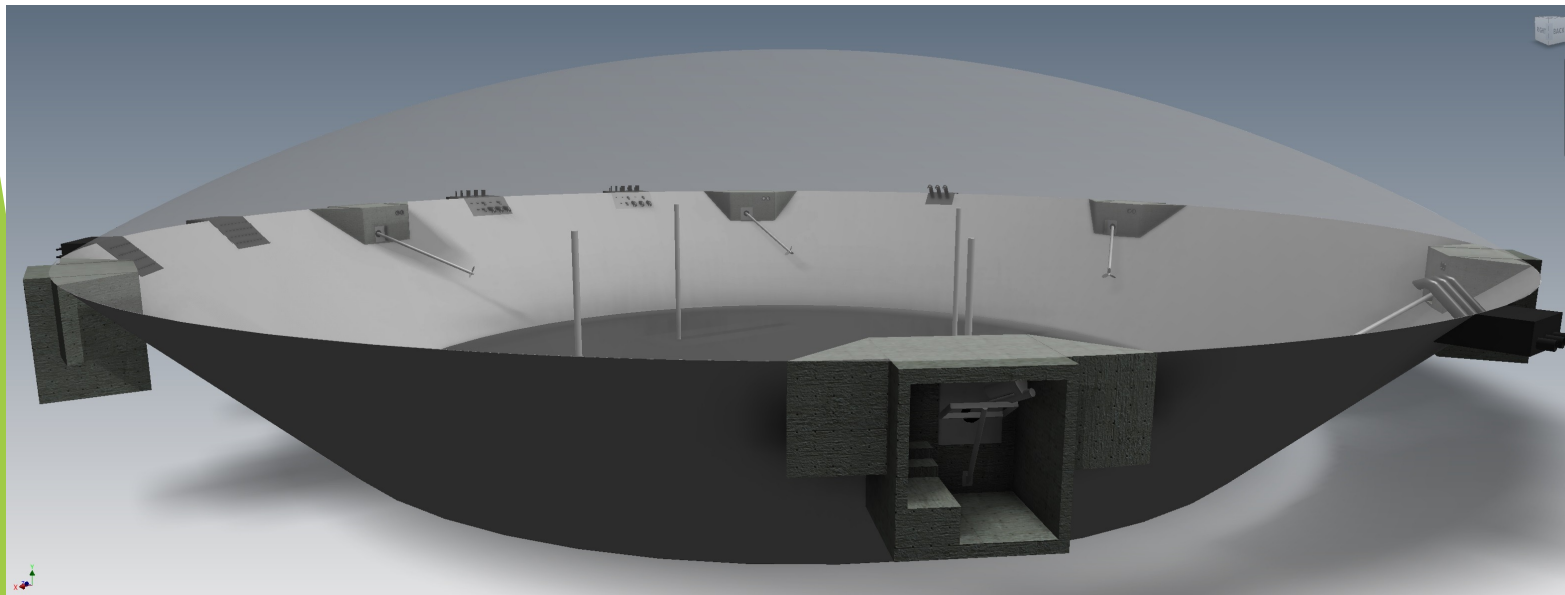
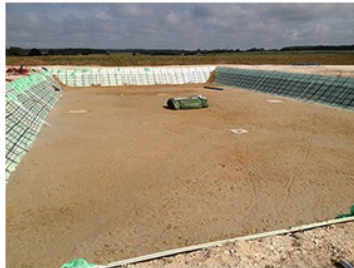




Farm based AD

Henry du Val de Beaulieu - Apsley Farms

Construction



Construction



Harvesting into Agbags



Gas to Grid - 1200sm³/hr 24/7



Food Grade CO₂



Digestate spreading



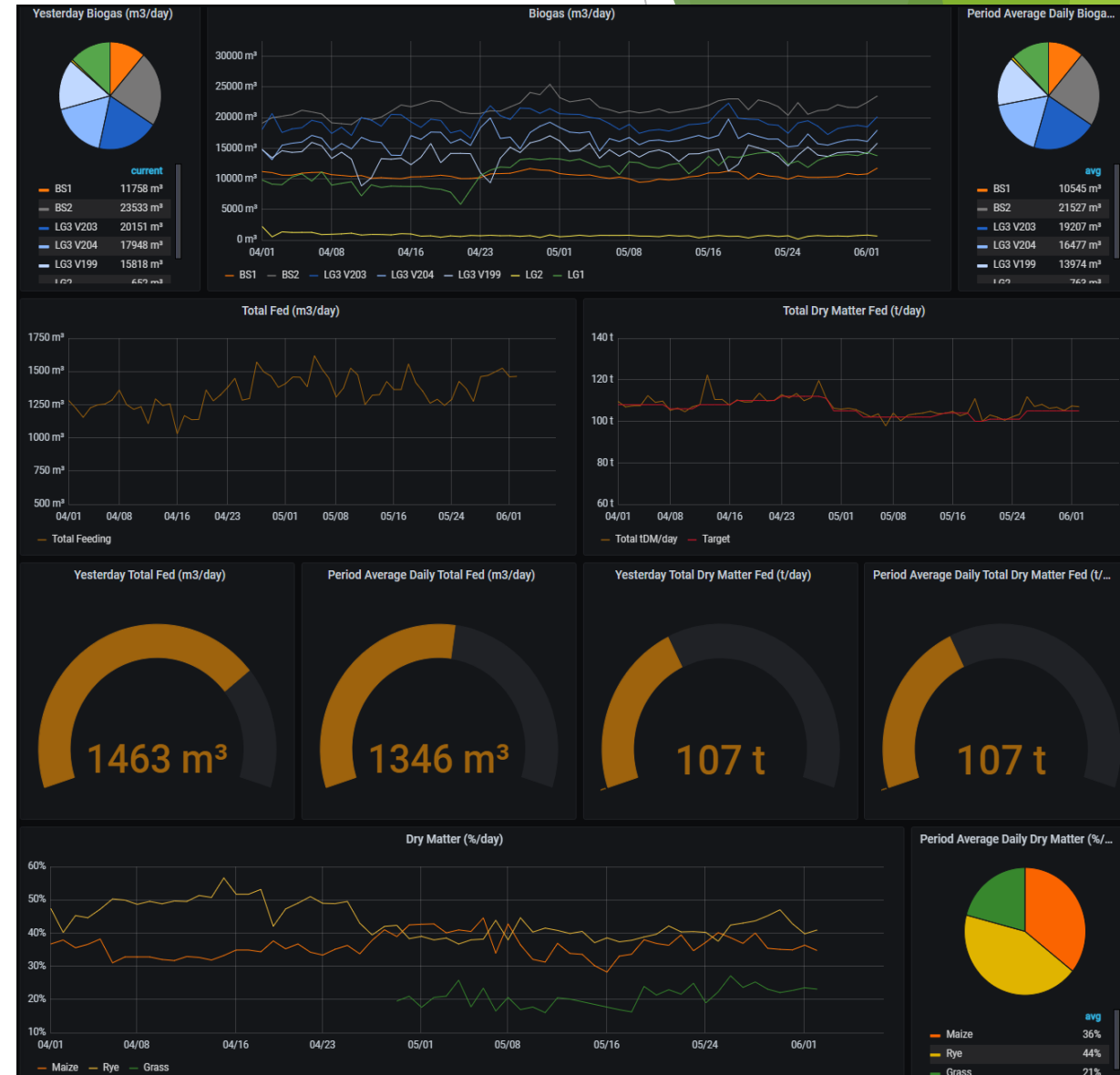
Garden Products



PLC, SCADA and CCTV in our Control Room



Key Performance Indicators (Operations Dashboard)



Biological KPIs

Biogas Production Phases

Hydrolytic phase

Acidogenic phase

Acetogenic phase

Methanogenic phase

Apsley Farms Laboratory

Feeding - Total (DM/day) & Total Biogas (m3/day)	CH4 GAS5000 (%)	DM (%)
Temperature (°C) & Total Biogas (m3/day)	CO2 GAS5000 (%)	pH
Feeding - Retention Time (day) & Total Biogas (m3/day)	O2 GAS5000 (%)	FOS (mg/l HAc)
Feeding - Total (DM/day) & Retention Time (day)	Bul GAS5000 (%)	TAC (mg/l CaCO3)
Feeding - Total Feeding (BSL, BSL, LSL) (m3/day) & Retention Time (day)	H2S GAS5000 (ppm)	Ratio (FOS/TAC)

TOTAL ENERGY (KWH/DAW)

Energy/Biogas (KWH/m3)

NRM Laboratory

NRM DM%	Non acetic acid VFA concentration (mmol Acetic Acid (mg) Equivalents - Acetic Acid)	NRM Ammonium Nitrogen (mg/kg)	NRM Total Cobalt (mg/kg)	NRM Iron Sulphur Ratio
NRM pH	NRM Acetic Acid [Hac] Equivalents (mg/l)	NRM Total Calcium (Ca) (mg/kg)	NRM Total Selenium (Se) (mg/kg)	NRM Total Iron (Fe) (mg/kg)
NRM FOS (mg/l HAc)	NRM Acetic Acid (mg/l)	NRM Total Phosphorus (P) (mg/kg)	NRM Total Molybdenum (Mo) (mg/kg)	Ash content (Nw/w)
NRM TAC (mg/l CaCO3)	NRM Propionic Acid (mg/l)	NRM Total Magnesium (Mg) (mg/kg)	NRM Total Nickel (Ni) (mg/kg)	NRM Total Mercury (Hg) (mg/kg)
NRM FOS/TAC Ratio	NRM Total Potassium (K) (mg/kg)	NRM Total Copper (Cu) (mg/kg)	NRM Total Manganese (Mn) (mg/kg)	
NRM Total Sulphur (S) (mg/kg)	NRM Total Sodium (Na) (mg/kg)	NRM Total Chromium (Cr) (mg/kg)	NRM Total Zinc (Zn) (mg/kg)	

Mechanical and Process Design



PLC, SCADA and Graphing development

The image displays two side-by-side screenshots of industrial automation software. The left window, titled 'Totally Integrated Automation PORTAL', shows a ladder logic program for 'FC_FEED_ROUTING_2'. It includes a variable declaration table and several networks of logic involving boolean inputs and outputs.

Name	Data type	Offset	Default value	Comment
Open_LF2_LF1	Bool			
Open_LF1_B51	Bool			
Open_LF1_B52	Bool			
Open_LF1_LG3	Bool			
AV211_Closed	Bool			
AV211_Opened	Bool			
AV240_Closed	Bool			
AV240_Opened	Bool			

The right window, titled 'Biogas - Overview', provides a graphical representation of a biogas production process. It features a central flow diagram with various tanks, valves, and flow meters. Surrounding this are multiple control panels for different components, including manual/auto mode selectors, start/stop buttons, and status indicators. A 'CO2' label is highlighted in a red box. The interface also includes a sidebar with a plant overview menu and a top navigation bar with tabs for Alarms, Fault Reset, and Feeding Log.

Control Panels - built in house



The Team



www.apsleyfarms.com

