

Western Kentucky University Dairy

Part 1

- 21 Milking Cows- 1400lbs
- 3 Dry Cows-1400lbs
- 8 calves-250lbs.
- All manure is scraped into a covered stack pad.
- Graze 8 hours per day (6months) (Milking Cows)
- Total Confinement (6months per year) (Milking Cows)

Part 2

- Lagoon size 100 X100 ft.
- Impervious surface 200 X150 ft.
- 10 gallons per head, per day milkhouse wastewater.
- Pumped twice a year.

Spring 2016

Field	Acreage	Yield (tons/ac)	P (lbs./ac)
H1-Alfalfa	20	5 t/a	75
H2- Corn Silage	32	20 t/a	120
H5- Corn Silage	19	20 t/a	36
H6-Soybeans	11	60 t/a	79
H7-Soybeans	32	60bu/a	450
H10-Soybeans	8	60bu/a	126
Fall 2016			
Field	Acreage	Yield	P (lbs./ac)
H1-Alfalfa	20	5 t/a	75
H2- Wheat Silage	32	6 t/a	120
H5- Wheat Silage	19	6 t/a	36
H6-Barley	11	70 bu/a	79
H7-wheat silage	32	6t/a	450
H10-Cover crop	8	60bu/a	126

Spring 2017

Field	Acreage	Yield	P (lbs./ac)
H1-Alfalfa	20	5 t/a	75
H2- Soybeans	32	60 bu/a	120
H5- Soybeans	19	60 bu/a	36
H6-Corn Silage	11	20 t/a	79
H7-Corn Silage	32	20t/a	450
H10-CornSilage	8	20t/a	126

Fall 2017

Field	Acreage	Yield	P (lbs./ac)
H1- Alfalfa	20	5 t/a	75
H2- Wheat Silage	32	6 t/a	120
H5- Barley	19	70 bu/a	36
H6-Barley	11	70 bu/a	79
H7-Wheat Silage	32	6t/a	450
H10-Cover Crop	8	60bu/a	126

Spring 2018

Field	Acreage	Yield	P (lbs./ac)
H1-Alfalfa	20	5 t/a	75
H2- Corn Silage	32	20 t/a	120
H5- Corn Silage	19	20 t/a	36
H6-Soybeans	11	60 bu/a	79
H7-Soybeans	32	60bu/a	450
H10-Soybeans	8	60bu/a	126

Fall 2018

Field	Acreage	Yield	P (lbs./ac)
H1- Alfalfa	20	5 t/a	75
H2- Wheat Silage	32	6 t/a	120
H5- Barley	19	70 bu/a	36
H6-Barley	11	70 bu/a	79
H7-Wheat Silage	32	6t/a	450
H10-Cover Crop	8	60bu/a	126

Spring 2019

Field	Acreage	Yield	P (lbs./ac)
H1-Alfalfa	20	5 t/a	75
H2- Soybeans	32	60 bu/a	120
H5- Soybeans	19	60 bu/a	36
H6-Corn Silage	11	20 t/a	79
H7-Corn Silage	32	20t/a	450
H10-Corn Silage	8	20t/a	126

Spring 2019

Field	Acreage	Yield	P (lbs./ac)
H1- Alfalfa	20	5 t/a	75
H2- Wheat Silage	32	6 t/a	120
H5- Barley	19	70 bu/a	36
H6-Barley	11	70 bu/a	79
H7-Wheat Silage	32	6t/a	450
H10-Cover crop	8	60bu/a	126

Spring 2020

Field	Acreage	Yield	P (lbs./ac)
H1-Alfalfa	20	5 t/a	75
H2- Corn Silage	32	20 t/a	120
H5- Corn Silage	19	20 t/a	36
H6-Soybeans	11	60 bu/a	79
H7-Soybeans	32	60bu/a	450
H10-Soybeans	8	60bu/a	126

Fall 2020

Field	Acreage	Yield	P (lbs./ac)
H1- Alfalfa	20	5 t/a	75
H2- Wheat Silage	32	6 t/a	120
H5- Barley	19	70 bu/a	36
H6-Barley	11	70 bu/a	79
H7- Wheat Silage	32	6t/a	450
H10-Cover Crop	8	60bu/a	126

Dairy manure applications

- Alfalfa only receives liquid manure during the fall application for 2016 at 5000 G/A.
- Corn receives all of the solid manure with at least 4 Ton/A and some liquid.
- Soybeans receive 2000 G/A
- H10 (during the fall) is used as a cover crop and will be burn down.
- Barley receives 5000 G/A
- H 5 receives only liquid manure during the fall because the field is close to the lagoon.
- H2 & H7 receive solid manure only when in wheat silage.