

Sheet1

DATA FROM SELECTED SAMPLES OF 3 SPECIES WITH MULTIPLE SIMILAR HARVEST-DATES, GROUPED INTO 3 DATE CATEGORIES

LATE JUNE:																					
ID	Barrel	Harvest Date	Site, Species, Condition, notes	% Moistur	% DM	Crud P %DM	Avail Protein	ADICP	Adj Cr. Protein	Sol P %CP	Sol P %DM	Degr P %CP	Degr P %DM	ADF %DM	NDF %DM	NFC %DM	WSC %DM	Cr Fat %DM	Ash %DM	TDN	
PE3	(Pair)	06/27/23	MOFGA BLACK CHERRY ENSILED	67.8	32.2	13.2	8.7	4.4	9.7	20	2.6	21	2.8	31	39.1		6.1	not req		59	
B10	#7	06/30/23	MOFGA BLACK CHERRY ENSILED	62.3	37.7	16.3	11.1	5.2	12.1	18	2.9	22	3.6	22.6	29.9		8.7	not req		62	
			Black Cherry ave	65.15	34.85	15.85	9.90	4.80	13.93	18.33	2.60	21.33	3.04	26.20	34.68	37.75	8.23	6.20	7.22	64.00	
PE18	Bucket	06/30/23	MOFGA GREEN ASH ENSILED	60.9	39.1	16.7	6.2	10.5	7.2	15	2.5	23	3.8	36.1	48.7	22.9	5.5	4.9	6.77	55	
YK1	#8B	06/30/23	MOFGA RED MAPLE ENSILED	54.1	45.9	7.9	4.2	3.7	5.2	12	0.9	43	3.4	39.8	55.5	28.4	7	3.3	4.81	59	
			Gr Ash, Blk Cherry & Red Maple ave	60.05	39.95	13.48	6.77	6.33	8.78	15.11	2.02	29.11	3.42	34.03	46.29	29.68	6.91	4.80	6.27	59.33	
LATE JULY :																					
Samp ID	Barrel	Harvest Date	Site, Species, Condition, notes	% Moistur	% DM	Crud P %DM	Avail Protein	ADICP	Adj Cr. Protein	Sol P %CP	Sol P %DM	Degr P %CP	Degr P %DM	ADF %DM	NDF %DM	NFC %DM	WSC %DM	Cr Fat %DM	Ash %DM	TDN	
A5	#37	07/25/23	MOFGA BLACK CHERRY ENSILED	62.4	37.6	14.2	11.5	2.6	12.5	19	2.7	failed		21.9	29.9		7.2	not req		64	
A12	#39	07/26/23	MOFGA BLACK CHERRY ENSILED	59.1	40.9	13.2	10.3	2.9	11.3	17	2.2	failed		22.2	31.6		8.8	not req		63	
			Black Cherry ave	60.75	39.25	13.70	10.90	2.75	11.90	18.00	2.47			22.05	30.75		8.00			63.50	
N#7	#40	07/26/23	MOFGA GREEN ASH ENS (wirth Honey:	52.8	47.2	11.9	8.4	3.5	9.4					27.5	39.5	40	11.7	3.3	5.28	62	
YK2	#36	07/25/23	MOFGA RED MAPLE ENSILED	52.6	47.4	10.1	8.1	2		12	1.2	failed		23.3	32.9	43.7	12.3	9	4.34	75	
			Gr Ash, Blk Cherry & Red Maple ave	55.38	44.62	11.90	9.13	2.75	10.65	15.00	1.84			24.28	34.38	41.85	10.67	6.15	4.81	66.83	
EARLY OCTOBER:																					
Samp ID	Barrel	Harvest Date	Site, Species, Condition, notes	% Moistur	% DM	Crude P %DM	Avail Protein	ADICP	Adj Cr. Protein	Sol P %CP	Sol P %DM	Degr P %CP	Degr P %DM	ADF %DM	NDF %DM	NFC %DM	WSC %DM	Cr Fat %DM	Ash %DM	TDN	
C12	#7 FVF	10/02/23	FVF GREEN ASH ENSILED	56.8	43.2	12.2	8.7	3.5	9.7	19	2.3	28	3.4	24.1	36.6		6.8	not req		61	
C5	#9	10/05/23	FVF GREEN ASH ENSILED	55.3	44.7	12.7	9.4	3.3	10.4	26	3.3	29	3.7	25.3	38.4		10.1	not req		61	
C4	#11 FVF	10/08/23	FVF GREEN ASH ENSILED	59.5	40.5	10.3	7.6	2.7	8.6	27	2.8	31	3.2	28.9	41.2		7.4	not req		60	
			Green Ash ave	57.20	42.80	11.73	8.57	3.17	9.57	24.00	2.80	29.33	3.43	26.10	38.73		8.10			60.67	
C7	Bucket	10/11-12/23	YKF WW BLACK CHERRY ENSIL'D ***	57.9	42.1	15.4	12.7	2.7	13.7	20	3.1	25	3.9	18	25.1		11.3	not req		66	
PE19	Bucket	09/29/22	2022 YKF RED MAPLE POLLARD ENS	56.8	43.2	11	8.6	2.4		failed		failed		18.6	27.6	46.8	13	9.8	4.82	77	
			Gr Ash, Blk Cherry & Red Maple ave *	57.30	42.70	12.71	9.96	2.76	11.63	22.00	2.94	27.17	3.64	20.90	30.48	46.80	10.80			67.89	
			*2022 cherry ensiled 1 year longer.																		
C13	#50	09/15/23	YKF RED MAPLE ENSILED	59.5	40.5	9.7	7.8	1.8	8.8	17	1.6	22	2.1	19	25.6		25.3	not req		66	
			Gr Ash, Blk Cherry & Red Maple ave **	58.20	41.80	12.28	9.69	2.56	10.69	20.33	2.51	25.44	3.14	21.03	29.81		14.90			64.22	
			**Maple harvested earlier, 9/15/23.																		
			***This cherry was young coppice.																		

SEE DATE-CATEGORY COMPARISON BELOW (next page),

CONFOUNDED BY INFERRED GREATER SOIL RICHNESS WITH MEASURED HIGHER YIELDS PER LFT AT FVF & YKF FARM-SITES, THAN AT MOFGA SOUTH PARKING FIELD.

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* RESULTS ARE CONFOUNDED BY INFERRED GREATER SOIL RICHNESS WITH MEASURED HIGHER YIELDS PER LFT AT FVF & YKF FARM-SITES, THAN AT MOFGA SOUTH PARKING FIELD.

Date-Category Averages across Green Ash, Black Cherry & Red Maple Compared*:

	Sites	Site, Species, Condition, notes	% Moistur		Crud P Avail		Adj Cr.		Sol P		Degr P		ADF	NDF	NFC	WSC	Cr Fat	Ash	TDN
			% DM	%DM	Protein	ADICP	Protein	%CP	%DM	%CP	%DM	%DM	%DM	%DM	%DM	%DM	%DM	%DM	%DM
(using 1 yr longer-ensiled 2022 maple) in last date-group >	MOFGA	Harvested June 15-30, 2023; ensiled until	60.05	39.95	13.48	6.77	6.33	8.78	15.11	2.02	29.11	3.42	34.03	46.29	29.68	6.91	4.80	6.27	59.33
	MOFGA	Harvested July 25-26, 2023; ensiled until	55.38	44.62	11.90	9.13	2.75	10.65	15.00	1.84			24.28	34.38	41.85	10.67	6.15	4.81	66.83
	FVF & YKF	H. Sept 29, '22 & Oct 2-11, '23; ens 'til wi	57.30	42.70	12.71	9.96	2.76	11.63	22.00	2.94	27.17	3.64	20.90	30.48	46.80	10.80	9.80	4.82	67.89
		No	No	No	Went	Down	Went	Up	Up	Went	Up a	Went	Went	Went	Went	Went	Went	Down	Up a
		Trend	Trend	Trend	Up	mostly	Up	mostly	mostly	Down	bit	Down	Down	Up	Up	Up	Up	mostly	bit
(using earlier-harvested 9/15/23 maple) in last date-group >	MOFGA	Harvested June 15-30, 2023; ensiled until	60.05	39.95	13.48	6.77	6.33	8.78	15.11	2.02	29.11	3.42	34.03	46.29	29.68	6.91	4.80	6.27	59.33
	MOFGA	Harvested July 25-26, 2023; ensiled until	55.38	44.62	11.90	9.13	2.75	10.65	15.00	1.84			24.28	34.38	41.85	10.67	6.15	4.81	66.83
	FVF & YKF	Harvested Sept 15 & Oct 2-11, '23, ens 't	58.20	41.80	12.28	9.69	2.56	10.69	20.33	2.51	25.44	3.14	21.03	29.81		14.90			64.22
		No	No	No	Went	Went	Went	Up	Up	Went	Down	Went	Went	Went	Went	Went	Went	Went	No
		Trend	Trend	Trend	Up	Down	Up	mostly	mostly	Down	a bit	Down	Down	Up	Up	Up	Up	Down	Trend

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Samp ID	Harvest Barrel	Harvest Date	Site, Species, Condition, notes	Calcium	Phosph	Magnes	Potassiu	Sodium	Iron	Zinc	Copper	Mang	PPM Moly	Sulfur	pH	% Am (CPE)	ME 1xlb	ME 1xkg	NEL	NEM	NEG
PE3	(Pair)	06/27/23	MOFGA BLACK CHERRY ENSILED	1.2	0.22	0.18	1.11	0.01	172	40	5	45	0.2	0.13	5	0.33	0.99	2.19	0.63	0.57	0.32
B10	#7	06/30/23	MOFGA BLACK CHERRY ENSILED Black Cherry ave	0.82	0.26	0.2	1.24	0.014	103	25	5	122	0	0.13	4.5	0.42	1.05	2.32	0.67	0.62	0.36
PE18	Bucket	06/30/23	MOFGA GREEN ASH ENSILED	1.37	0.28	0.28	1.48	0.004	99	38	26	85	0.7	0.21	4.9	0.09	0.9	1.98	0.56	0.51	0.26
YK1	#8B	06/30/23	MOFGA RED MAPLE ENSILED Gr Ash, Blk Cherry & Red Maple ave	0.85	0.18	0.25	1.25	0.017	130	32	6	150	0.2	0.11	5.8	0	0.95	2.09	0.56	0.54	0.29
				1.11	0.23	0.27	1.37	0.01	114.50	35.00	16.00	117.50	0.45	0.16	5.35	0.05	0.93	2.04	0.56	0.53	0.28
Samp ID	Harvest Barrel	Harvest Date	Site, Species, Condition, notes	Calcium	Phosph	Magnes	Potassiu	Sodium	Iron	Zinc	Copper	Mang	PPM Moly	Sulfur	pH	% Am (CPE)	ME 1xlb	ME 1xkg	NEL	NEM	NEG
B5	#37	07/25/23	MDFGA BLACK CHERRY ENSILED	1.58	0.24	0.29	1.32	0.01	63	20	5	231	0	0.11	4.6	0.4	1.1	2.42	0.7	0.65	0.39
A12	#39	07/26/23	MOFGA BLACK CHERRY ENSILED Black Cherry ave	1.43	0.24	0.23	0.011	51	18	5	184	0	0.1	4.7	0.27	1.07	2.37	0.68	0.64	0.37	
				1.38	0.26	0.28	1.23	0.02	63.00	19.00	5.50	190.00	0.00	0.11	4.55	0.38	1.11	2.44	0.70	0.66	0.40
N#7	#40	07/26/23	MOFGA GREEN ASH ENS (wirth Honeysuckle etc)											5.6			1.05	2.31	0.66	0.62	0.36
YK2	#36	07/25/23	MOFGA RED MAPLE ENSILED Gr Ash, Blk Cherry & Red Maple ave	0.83	0.18	0.17	0.81	0.096	66	150	8	194	0.3	0.1	4.2	0.05	1.3	2.86	0.84	0.85	0.56
				1.10	0.22	0.22	1.02	0.06	64.50	84.50	6.75	192.00	0.15	0.11	4.78	0.21	1.15	2.54	0.73	0.71	0.44
Samp ID	Harvest Barrel	Harvest Date	Site, Species, Condition, notes	Calcium	Phosph	Magnes	Potassiu	Sodium	Iron	Zinc	Copper	Mang	PPM Moly	Sulfur	pH	% Am (CPE)	ME 1xlb	ME 1xkg	NEL	NEM	NEG
C12	#7 FVF	10/02/23	FVF GREEN ASH ENSILED	1.02	0.19	0.28	1.07	0.006	103	12	8	51	0	0.22	5.6	0.41	1.02	2.25	0.65	0.6	0.34
C5	#9	10/05/23	FVF GREEN ASH ENSILED	1.11	0.21	0.31	1.2	0.005	92	11	9	48	0	0.24	5.7	0.38	1.02	2.25	0.64	0.59	0.33
C4	#11 FVF	10/08/23	FVF GREEN ASH ENSILED Green Ash ave	1.12	0.15	0.27	1.17	0.009	96	13	10	85	0	0.15	5.1	0.34	1	2.2	0.63	0.58	0.32
				1.08	0.18	0.29	1.15	0.01	97.00	12.00	9.00	61.33	0.00	0.20	5.47	0.38	1.01	2.23	0.64	0.59	0.33
C7	Bucket	10/11-12/23	YKF WW BLACK CHERRY ENSIL'D ***	1.46	0.21	0.22	1.21	0.008	106	20	6	310	0	0.12	4.8	0.32	1.14	2.51	0.72	0.68	0.42
PE19	Bucket	09/29/22	2022 YKF RED MAPLE ENSILED Gr Ash, Blk Cherry & Red Maple ave *	0.83	0.25	0.15	0.63	0.01	2190	40	20	95	1.2	0.13	5.7	0.03	1.34	2.95	0.88	0.89	0.6
				1.12	0.21	0.22	1.00	0.01	797.67	24.00	11.67	155.44	0.40	0.15	5.32	0.24	1.16	2.56	0.75	0.72	0.45
C13	#50	09/15/23	YKF RED MAPLE ENSILED Gr Ash, Blk Cherry & Red Maple ave **	0.99	0.22	0.16	0.77	0.006	59	31	6	87			4.4	0.06	1.12	2.47	0.73	0.69	0.42
				1.18	0.20	0.22	1.04	0.01	87.33	21.00	7.00	152.78	0.00	0.16	4.89	0.25	1.09	2.40	0.70	0.65	0.39

*2022 cherry ensiled 1 year longer.
 **Maple harvested earlier, 9/15/23.
 ***This cherry was young coppice.

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Samp ID	Barrel	Harvest Date	Site, Species, Condition, notes	Calcium	Phosph	Magnes	Potassiu	Sodium	Iron	Zinc	Copper	Mang	PPM			% Am	ME	ME	NEL	NEM	NEG
													Moly	Sulfur	pH	(CPE)	1xlb	1xkg			
			Harvested June 15-30, 2023; ensiled until	1.11	0.23	0.27	1.37	0.01	114.50	35.00	16.00	117.50	0.45	0.16	5.35	0.05	0.93	2.04	0.56	0.53	0.28
			Harvested July 25-26, 2023; ensiled until	1.10	0.22	0.22	1.02	0.06	64.50	84.50	6.75	192.00	0.15	0.11	4.78	0.21	1.15	2.54	0.73	0.71	0.44
(using 1 yr longer-ensiled 2022 maple)			H. Sept 29, '22 & Oct 2-11, '23; ens 'til wir	1.12	0.21	0.22	1.00	0.01	797.67	24.00	11.67	155.44	0.40	0.15	5.32	0.24	1.16	2.56	0.75	0.72	0.45
			No	Went	Down	Went	No	No	No	No	No	No	No	No	No	Went	Went	Went	Went	Went	Went
			Trend	Down	mostly	Down	Trend	Trend	Trend	Trend	Trend	Trend	Trend	Trend	Trend	Up	Up	Up	Up	Up	Up

Samp ID	Barrel	Harvest Date	Site, Species, Condition, notes	Calcium	Phosph	Magnes	Potassiu	Sodium	Iron	Zinc	Copper	Mang	PPM			% Am	ME	ME	NEL	NEM	NEG
													Moly	Sulfur	pH	(CPE)	1xlb	1xkg			
			Harvested June 15-30, 2023; ensiled until	1.11	0.23	0.27	1.37	0.01	114.50	35.00	16.00	117.50	0.45	0.16	5.35	0.05	0.93	2.04	0.56	0.53	0.28
			Harvested July 25-26, 2023; ensiled until	1.10	0.22	0.22	1.02	0.06	64.50	84.50	6.75	192.00	0.15	0.11	4.78	0.21	1.15	2.54	0.73	0.71	0.44
(using earlier-harvested 9/15/23 maple)			Harvested Sept 15 & Oct 2-11, '23, ens 'ti	1.18	0.20	0.22	1.04	0.01	87.33	21.00	7.00	152.78	0.00	0.16	4.89	0.25	1.09	2.40	0.70	0.65	0.39
			No	Went	Down	No	No	No	No	No	No	No	Went	No	No	Went	No	No	Up	Up	No
			Trend	Down	mostly	Trend	Trend	Trend	Trend	Trend	Trend	Trend	Dow	Trend	Trend	Up	Trend	Trend	mostl	mostl	Trend

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Samp ID	Harvest Barrel	Harvest Date	Site, Species, Condition, notes	DE Mcal/kg	A % CP	B % CP	C % CP	Kd CP	Ammon % of SP	AmCPE %CP	HDE	RFV
PE3	(Pair)	06/27/23	MOFGA BLACK CHERRY ENSILED	3	57	33	10	9	13	2.5		154
B10	#7	06/30/23	MOFGA BLACK CHERRY ENSILED	3	31	62	7	12	14	2.6		222
			Black Cherry ave	3.00	44.00	47.50	8.50	10.50	13.50	2.55		187.93
PE18	Bucket	06/30/23	MOFGA GREEN ASH ENSILED	2	31	62	7	12	4	0.5		171
YK1	#8B	06/30/23	MOFGA RED MAPLE ENSILED	3	31	62	7	12	0	0		97
			Gr Ash, Blk Cherry & Red Maple ave	2.67	35.33	57.17	7.50	11.50	5.83	1.02		151.99

Samp ID	Harvest Barrel	Harvest Date	Site, Species, Condition, notes	DE Mcal/kg	A % CP	B % CP	C % CP	Kd CP	Ammon % of SP	AmCPE %CP	HDE	RFV
A5	#37	07/25/23	MDFGA BLACK CHERRY ENSILED	3	31	62	7	12	15	2.8		224
A12	#39	07/26/23	MOFGA BLACK CHERRY ENSILED	3	31	62	7	12	12	2		211
			Black Cherry ave	3.00	31.00	62.00	7.00	12.00	13.50	2.40		217.15
N#7	#40	07/26/23	MOFGA GREEN ASH ENS (wirth Honeysuckle €	3	57	33	10	9				159
YK2	#36	07/25/23	MOFGA RED MAPLE ENSILED	3	31	62	7	12	4	0.5		200
			Gr Ash, Blk Cherry & Red Maple ave	3.00	39.67	52.33	8.00	11.00	8.75	1.45		192.06

Samp ID	Harvest Barrel	Harvest Date	Site, Species, Condition, notes	DE Mcal/kg	A % CP	B % CP	C % CP	Kd CP	Ammon % of SP	AmCPE %CP	HDE	RFV
C12	#7 FVF	10/02/23	FVF GREEN ASH ENSILED	3	31	62	7	12	18	3.4		178
C5	#9	10/05/23	FVF GREEN ASH ENSILED	3	31	62	7	12	12	3		168
C4	#11 FV	10/08/23	FVF GREEN ASH ENSILED	3	31	62	7	12	12	3.3		150
			Green Ash ave	3.00	31.00	62.00	7.00	12.00	14.00	3.23		165.25
C7	Bucket	10/11-12/23	YKF WW BLACK CHERRY ENSIL'D ***	3	31	62	7	12	10	2.1		278
PE19	Bucket	09/29/22	2022 YKF RED MAPLE POLLARD ENSILED	3	31	62	7	12		0.3		251
			Gr Ash, Blk Cherry & Red Maple ave *	3.00	31.00	62.00	7.00	12.00	12.00	1.88		231.18
*2022 cherry ensiled 1 year longer.												
C13	#50	09/15/23	YKF RED MAPLE ENSILED	3	31	62	7	12	4	0.6		269
			Gr Ash, Blk Cherry & Red Maple ave **	3.00	31.00	62.00	7.00	12.00	9.33	1.98		237.34

***This cherry was young coppice.

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Samp ID	Barrel	Harvest Date	Site, Species, Condition, notes	DE Mcal/kg	A % CP	B % CP	C % CP	Kd CP	Ammon % of SP	AmCPE %CP	HDE	RFV
			Harvested June 15-30, 2023; ensiled until winter	2.67	35.33	57.17	7.50	11.50	5.83	1.02		151.99
			Harvested July 25-26, 2023; ensiled until winter	3.00	39.67	52.33	8.00	11.00	8.75	1.45		192.06
(using 1 yr longer-ensiled 2022 maple)			H. Sept 29, '22 & Oct 2-11, '23; ens 'til wint '23-'	3.00	31.00	62.00	7.00	12.00	12.00	1.88		231.18
				Went Up	No Trend	No Trend	No Trend	No Trend	Went Up	Went Up		Went Up

Samp ID	Barrel	Harvest Date	Site, Species, Condition, notes	DE Mcal/kg	A % CP	B % CP	C % CP	Kd CP	Ammon % of SP	AmCPE %CP	HDE	RFV
			Harvested June 15-30, 2023; ensiled until winter	2.67	35.33	57.17	7.50	11.50	5.83	1.02		151.99
			Harvested July 25-26, 2023; ensiled until winter	3.00	39.67	52.33	8.00	11.00	8.75	1.45		192.06
(using earlier-harvested 9/15/23 maple)			Harvested Sept 15 & Oct 2-11, '23, ens 'til winter	3.00	31.00	62.00	7.00	12.00	9.33	1.98		237.34
				Went Up	No Trend	No Trend	No Trend	No Trend	Went Up	Went Up		Went Up