

APPENDIX B: CHAPTER 2 SUPPLEMENTAL TABLES

Supplemental Table S1: Bt hybrids trait packages used with the lepidopteran-active insecticidal proteins and hybrid notations.

Trait Package	Lepidopteran-active Insecticidal Proteins	Hybrid Name	Hybrid Group Notation
Conventional	none	G12W66 G10T63	Non-Bt
Agrisure 3120	Cry1Ab, Cry1F	G10T63-3120	Bt _E
Agrisure 3122	Cry1Ab, Cry1F	G12W66-3122	
Agrisure Vipitera 3330	Cry1Ab, Vip3A, Cry1A.105/Cry2Ab2	G09A86-3330	Bt _{EW}
Agrisure Vipitera 3220	Cry1Ab, Vip3A, Cry1F	G09Y24-3220A	

APPENDIX C: CHAPTER 3 SUPPLEMENTAL TABLES

Supplementary Table S2: Effect of planting time on plant density and emergence at two site-years in Michigan.

Site-year	Planting time ^a	Plant Density (plants ha ⁻¹)	Plant Emergence (%)
MSU 2020	Early	90,025	98.5
	Mid	87,774	96.1
	Late	89,144	97.6
	p-value	0.25	0.78
MSU 2022	Early	88,655	97.0
	Mid	89,438	97.9
	Late	88,851	97.0
	p-value	0.31	0.85

^aEarly: planting between April 25 - May 10; Mid: planting between May 11- May 25; Late: planting between May 26 - June 10.

Supplementary Table S3: Effect of seeding rate on plant density and emergence rates at various site-years.

Site-years	Seeds ha ⁻¹	Plant Density (plants ha ⁻¹)	Plant Emergence (%)
MSU 2020	69,160	67,519 c	95.8
	83,980	83,176 bc	95.5
	98,800	96,875 b	95.2
	113,620	109,596 a	93.3
	p-value	<0.0001	0.13
MSU 2022	69,160	65,562 d	93.1
	83,980	80,240 c	92.1
	98,800	92,961 b	91.3
	113,620	106,660 a	90.8
	p-value	0.02	0.18
Allegan 2020	69,160	67,519 c	95.9
	83,980	83,176 bc	95.5
	98,800	96,875 b	95.2
	113,620	109,596 a	93.2
	p-value	0.001	0.14
Huron 2020	69,160	65,563 d	93.2
	83,980	80,244 c	92.8
	98,800	92,966 b	91.8
	113,620	106,667 a	91.2
	p-value	0.02	0.23

Note: Data for MSU 2020 and MSU 2022 were pooled across all planting dates. Values with same letters within a site-year and variable are not different ($\alpha = 0.10$).

Supplementary Table S3 (Cont'd): Effect of seeding rate on plant density and emergence rates at various site-years.

Site-years	Seeds ha ⁻¹	Plant Density (plants ha ⁻¹)	Plant Emergence (%)
Lenawee 2020	69,160	67,813 d	96.3
	83,980	83,958 c	96.4
	98,800	97,854 b	96.2
	113,620	112,532 a	95.8
	p-value	0.005	0.25
Huron 2021	69,160	69,476 c	98.6 a
	83,980	85,915 b	98.7 a
	98,800	99,811 ab	98.1 a
	113,620	104,703 a	89.2 b
	p-value	0.002	0.03
Lenawee 2021	69,160	69,280 d	98.3 a
	83,980	86,111 c	98.9 a
	98,800	98,538 b	96.8 b
	113,620	107,639 a	91.7 c
	p-value	0.007	0.09
Ottawa 2021	69,160	65,562 d	93.1
	83,980	85,915 c	98.7
	98,800	96,875 b	95.2
	113,620	112,532 a	95.8
	p-value	0.0002	0.16
Ingham 2022	69,160	65,562 d	93.1
	83,980	80,240 c	92.1
	98,800	94,918 b	93.3
	113,620	109,596 a	93.3
	p-value	0.01	0.26
Lenawee 2022	69,160	67,813 d	96.3
	83,980	84,252 c	96.7
	98,800	96,875 b	95.2
	113,620	112,532 a	95.8
	p-value	0.008	0.18
Saginaw 2022	69,160	69,476 c	98.6
	83,980	85,916 bc	98.7
	98,800	100,789 ab	99.0
	113,620	115,663 a	98.5
	p-value	0.004	0.27

Note: Data for MSU 2020 and MSU 2022 were pooled across all planting dates.

Values with same letters within a site-year and variable are not different ($\alpha = 0.10$).

Supplementary Table S4: p-values and adjusted R^2 values for linear and quadratic relations between plant density of silage corn and dry forage yield.

Site-year	p-value (Linear model)	Adjusted R^2 (Linear model)	p-value (Quadratic model)	Adjusted R^2 (Quadratic model)
MSU 2020	0.34	0.01	0.18	0.05
MSU 2022	0.25	0.09	0.43	0.06
Allegan 2020	0.01	0.33	0.01	0.42
Huron 2020	0.04	0.11	0.03	0.45
Lenawee 2020	0.01	0.33	0.05	0.26
Huron 2021	0.40	0.02	0.10	0.04
Lenawee 2021	0.97	0.09	0.93	0.14
Ottawa 2021	0.001	0.67	0.09	0.13
Ingham 2022	0.41	0.05	0.50	0.09
Lenawee 2022	0.97	0.07	0.93	0.09
Saginaw 2022	0.001	0.65	0.004	0.71

Note: Data for MSU 2020 and MSU 2022 were pooled across all planting dates.
p-values in bold denote significant regression models ($\alpha = 0.10$).

APPENDIX D: CHAPTER 4 SUPPLEMENTAL TABLES

Supplemental Table S5: Hybrid details used in the field trial in three years of the study.

Growing Year	Susceptibility to tar spot	Hybrid	Silking GDD	Maturity GDD
2021	Susceptible	G09Y24-5222A	1420	2570
	Partially Resistant	G07F23-3111	1375	2570
2022 and 2023	Susceptible	G09Y24-5222A	1420	2570
	Partially Resistant	G12S75-5122	1430	2630

APPENDIX E: CHAPTER 5 SUPPLEMENTAL TABLES

Supplemental Table S6: Information on hybrids (as provided by the seed company) used in the field trials across all site-years.

Disease Resistance	Hybrid	Tar spot resistance rating	Silking GDD^a	Maturity GDD
Susceptible	G98M44-5122	5	1310	2410
Partially Resistant	G00H12-5122	2	1315	2420
Tolerant	G02K39-5122	3	1335	2475

^aGDD: Growing Degree Day.