

Predictions for corn flea beetle and Stewart's bacterial wilt disease on sweet corn at Ohio locations

Table 1. Corn flea beetle index for individual Ohio locations for each year, 1998 to 2005, and for long-term average temperature.

Site	Long Term Avg.	Year									
		1998	1999	2000	2001	2002	2003	2004	2005		
Corn flea beetle index ¹											
Piketon	100	116	111	107	94	113	91	97	107		
Jackson	96	116	110	105	93	110	90	96	106		
Ripley	96	111	106	101	87	108	82	89	-		
Columbus	92	110	102	96	88	-	83	-	95		
Oxford	92	110	105	101	86	110	85	93	102		
S.Charleston	90	111	101	95	82	104	77	86	93		
Delaware	86	106	101	95	83	105	78	85	92		
Kingsville	85	105	98	96	82	104	74	82	87		
Wooster	84	106	98	96	83	105	76	84	91		
Mt.Vernon.	81	105	98	-	-	-	-	-	-		
Hoytville	81	105	93	90	76	102	72	81	84		
Fremont	80	98	94	87	76	102	68	78	78		

¹ Corn flea beetle index = average temperature of December + average temperature of January + average temperature of February.

Table 2. Summary of the percentage of Ohio locations in each category of Stewart's wilt prediction, based on corn flea beetle index calculated for 10 to 12 sites per year, 1998–2005.

Stewart's wilt prediction (based on corn flea beetle index)	Long Term Avg.	Year									
		1998	1999	2000	2001	2002	2003	2004	2005		
Percentage of Ohio sites in each category											
Severe (index > 100)	0%	92%	58%	36%	0%	100%	0%	0%	30%		
Moderate to severe (index 95 - 100)	25%	8%	25%	45%	0%	0%	0%	20%	10%		
Light to moderate (index 90 - 94)	17%	0%	17%	9%	18%	0%	18%	10%	30%		
Negligible (index < 90)	58%	0%	0%	9%	82%	0%	82%	70%	30%		

Table 3. Corn flea beetle index for individual Ohio locations for each year, 1988 to 1997, and for long-term average temperature.

Site	Long Term Avg.	Year									
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Corn flea beetle index ¹											
Piketon	100	-	-	-	-	-	103	91	103	95	108
Jackson	96	96	102	99	107	107	102	89	102	93	107
Ripley	96	94	102	97	100	104	96	82	101	90	105
Caldwell	95	93	98	97	106	103	98	86	-	-	-
Columbus	92	90	95	94	102	105	94	82	94	84	98
Oxford	92	-	96	94	100	103	93	83	97	85	97
S.Charleston	90	98	93	91	96	98	90	79	92	81	96
Delaware	86	-	91	89	97	98	90	78	91	80	95
Kingsville	85	-	86	86	94	92	86	71	90	80	93
Wooster	84	85	90	88	96	95	89	76	92	80	96
Canfield	84	83	88	93	-	93	88	74	-	-	-
Mt.Vernon.	81	-	90	88	99	105	90	76	88	80	97
Hoytville	81	81	86	84	90	93	85	71	95	75	91
Fremont	80	82	-	84	90	89	85	68	83	71	86

¹ Corn flea beetle index = average temperature of December + average temperature of January + average temperature of February.

Table 4. Summary of the percentage of Ohio locations in each category of Stewart's wilt prediction, based on corn flea beetle index calculated for 9 to 14 sites per year, 1988-1997.

Stewart's wilt prediction (based on corn flea beetle index)	Long Term Avg.	Year									
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Percentage of Ohio sites in each category											
Severe (index >100)	0%	0%	17%	0%	25%	46%	14%	0%	25%	0%	25%
Moderate to severe (index 95 - 100)	29%	22%	25%	23%	50%	23%	14%	0%	17%	8%	50%
Light to moderate (index 90 - 94)	21%	33%	33%	31%	25%	23%	36%	7%	41%	17%	17%
Negligible (index <90)	50%	45%	25%	46%	0%	8%	36%	93%	17%	75%	8%