

APPENDIX G: 2018 UTAH MORMON CRICKET AND GRASSHOPPER REPORT

2018 Utah Mormon Cricket and Grasshopper Report

Utah Department of Agriculture and Food
Kristopher M. Watson
Program Manager
801-538-7184

2018 Grasshopper Report

COOPERATION

Utah Department of Agriculture and Food, Utah State Extension Service, and USDA APHIS PPQ cooperate to conduct grasshopper and Mormon cricket surveys. Each entity qualifies projects for the "state cost share program". In this program private landowners are reimbursed up to 50% of the cost for treating economically threatening grasshopper populations on their property when exceeding infestation levels of eight (8) insects per Sq. Yd. or greater. USDA APHIS PPQ is charged by congress to suppress high grasshopper population on federal lands. Each program works together to enable land owners and land managers to be good neighbors and stewards of the land.

COST SHARE PARTICIPATION

Grasshopper populations are on the rise. In 2018, UDAF issued 114 cost share agreements; however only 63 participants submitted paperwork for reimbursement. Nearly 30,000 acres were treated through the 63 participants. Private landowners in the following counties participated in the state cost share program: (4) Beaver, (8) Box Elder, (1) Cache, (1) Duchesne, (1) Emery, (1) Garfield, (4) Iron, (1) Juab, (4) Millard, (2) Piute, (26) Sanpete, (1) Sevier, (2) Tooele, (2) Utah, (5) Washington

AREAS OF CONCERN

- 2018 consisted of isolated populations of infestations in historical areas of concern. These places include: Box Elder, Sanpete, Sevier, Millard, Tooele, Duchesne, Uintah and Beaver counties.
- Some farmers and ranchers experienced high (50-70 Per Sq. Yd.) grasshopper populations causing damage to cropland areas in the central portion of the state, where historically populations persist.
- According to survey data, private land owners experienced the highest grasshopper populations with 291,431 infested acers; Federal property was second with 182,950 infested acers.
- No aerial or ground treatments were carried out by state or federal partners in 2018.

SURVEY

- 2,769 Surveys were taken throughout the State of Utah. All surveys were conducted by USDA APHIS PPQ. (See Map Below)
- During the 2018 survey season, no economically threatening Mormon cricket populations were found. Mormon cricket populations are extremely low and will likely remain low for several years.



GRASSHOPPER BIOLOGY

The predominant grasshopper species in 2018 were as follows:
[Melanoplus confusus Scudder](#), [Camnula pellucida \(Scudder\)](#),
[Aiolocara eliotti \(Thomas\)](#), [Melanoplus packardii Scudder](#),
[Melanoplus sanguinipes \(Fabricius\)](#).

GRASSHOPPER RESOURCES

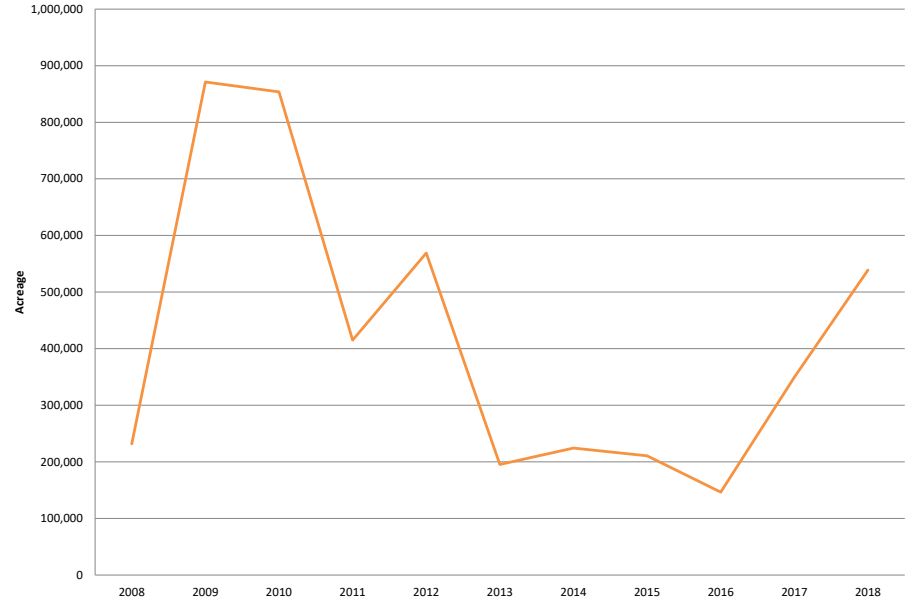
Field Guide To Common Western Grasshoppers:
http://www.sidney.ars.usda.gov/grasshopper/ID_Tools/F_Guide/index.htm

Utah State University Plant Pest Diagnostics:
<http://utahpests.usu.edu/IPM/htm/vegetables/vegetable-insect-disease/grasshopper-control/>

Grasshopper Infested Acreage By Year

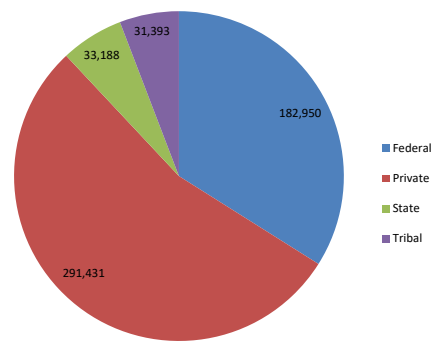
County	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Beaver	5,315	5,863		7,199	4,329	21,394	1,498		1,555	1,288	5,348	2,560
Box Elder	18,818	62,151	118,727	43,334	49,139	30,882	14,773	19,200	21,560	21,769	55,064	
Cache	3,856	22,442	47,869	14,393	16,246	3,840	5,489	6,283	2,560	12,991	23,407	
Carbon		3,733	12,763	3,357	1,806	354	2,084		2,080		10,605	
Daggett	1,288	1,568	2,714	2,850	6,128						4,678	9,188
Davis			1,288	2,560			1,288	2,560	1,288	1,656		
Duchesne	19,375	85,391	39,292	11,746	20,023	11,209	29,087	22,817	10,159	49,234	28,356	
Emery	4,329	22,491	7,680	13,339			1,288	3,560	261	2,910	11,531	
Garfield		2,474			3,343	5,665					2,560	
Grand	1,445	19,384	17,341	20,389			12,927	4,359	3,679	2,560	5,392	
Iron	2,560	12,318	13,170	21,530	9,453	26,364	14,707	3,840		3,840	3,776	
Juab	28,754	121,893	131,575	53,868	91,827	5,974	4,746	19,485	9,794	10,417	46,468	
Kane		1,288	1,288		1,279				1,288		628	
Millard	25,599	83,063	61,620	13,320	40,548	7,843	14,790	24,827	3,838	22,588	41,423	
Morgan	138	2,779	8,955	2,560	14,149	2,560	1,288	1,288		5,058	9,018	
Plute	3,135	395	1,288	4,882	14,778	3,127	2,631	2,175	1,288	2,992	2,560	
Rich		2,192	3,519	6,030	29,003	1,288	2,212	1,288	1,288	4,788	16,145	
Salt Lake		8,265	6,400	1,288				3,840			849	
San Juan	7,915	3,848	1,288	1,288				2,091				
Sanpete	28,749	129,329	181,346	71,663	69,321	34,870	18,476	32,614	21,669	34,438	66,455	
Sevier	4,789	16,807	11,288	13,732	38,555	2,817	12,684	18,590	13,576	17,151	38,885	
Summit	2,560	6,822	7,680		10,941		4,683	2,560	2,560	7,415	21,399	
Tooele	9,444	90,808	49,938	49,965	46,254	8,522	37,175	14,088	17,233	20,578	28,277	
Uintah	17,692	94,457	57,805	22,165	37,870	1,288	14,334	10,955	9,602	66,578	71,218	
Utah	6,782	60,751	58,828	20,285	36,072	5,239	6,398	12,656	21,680	25,635	26,720	
Wasatch		5,793	1,288	7,680	16,876	1,288	4,256	1,126	1,288	12,766	7,285	
Washington	38,487	4,898	1,288	4,912	1,817	21,825	19,389			7,680	3,904	
Wayne												
Weber	1,144		7,461	1,288	9,162					2,747	6,849	
Total	231,864	871,086	853,662	415,000	569,019	195,523	224,434	210,687	146,553	349,638	538,962	

Grasshopper Infested Acreage By Year

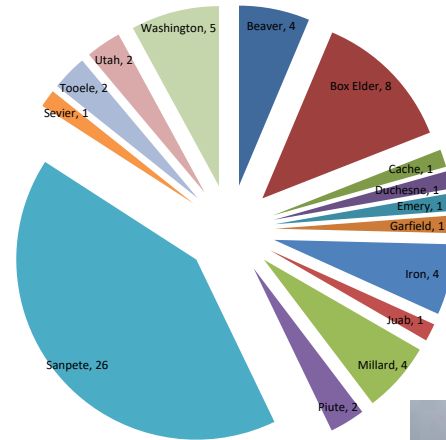


Grasshopper Infested Acreage By Land Ownership

County	Federal	Private	State	Tribal	Total
Beaver		798	1,762		2,560
Box Elder	3,635	49,866	1,563		55,064
Cache	6,050	15,541	1,816		23,407
Carbon	2,238	7,846	521		10,605
Daggett	8,518	630	40		9,188
Duchesne	2,092	16,236	1,213	8,815	28,356
Emery	7,613	3,405	513		11,531
Grand	4,787	675	930		6,392
Iron	148	2,919	711		3,776
Juab	31,354	12,492	1,954	668	46,468
Kane		628			628
Millard	11,573	27,038	2,274	538	41,423
Morgan	34	8,595	389		9,018
Plute	2,321	239			2,560
Rich	2,865	10,799	2,481		16,145
Salt Lake		535	314		849
Sanpete	19,651	42,314	4,490		66,455
Sevier	28,131	7,120	3,634		38,885
Summit	2,352	18,390	657		21,399
Tooele	13,582	12,454	2,103	138	28,277
Uintah	19,745	24,500	5,730	21,234	71,218
Utah	10,854	14,224	1,642		26,720
Wasatch	1,566	5,193	527		7,285
Washington	1,123	2,781			3,904
Weber		760	6,089		6,849
Total	182,950	291,431	33,188	31,393	538,962



Number of Cost Share Participants



Participants: 63
Total Acres Treated: 30,000



Mormon Cricket Infested Acreage By Year

