#### Arizona Lettuce Insect, Disease and Weed Losses Survey - 2013 / 2014

#### Part 1.

<ol> <li>Please indicate: PCA Industry Other</li> <li>Reporting Area (county or counties):</li> </ol>	Fall Lettuce	Spring Lattuce
3. Date submitted: (dd/mm/yy):	(Sep - Nov)	Spring Lettuce (Dec-Mar)
4. How many Lettuce acres did you watch this year (total acres)		
5. Percent reduction in yield by: Weather (% reduction)		
6. Percent reduction in yield by: Chemical injury (% reduction)		
7. Percent reduction in yield by: Weeds (% reduction)		
8. Percent reduction in yield by: Disease (% reduction)		
10. Percent reduction in yield by: Birds (% reduction)		
11. Percent reduction in yield by: Other Factors (% reduction), please list below		
<b>Insecticide Application Costs:</b> It is possible that acreage could have been treated using both air and ground sprayer, thus, when combined, percentages may total > 100%. These estimates are for <i>Insecticide Applications only</i> .	Fall Lettuce (Sep - Nov)	Spring Lettuce (Dec-Mar)
Aerial Applications		
12. Avg. % acres treated by AIR		
13. Avg no. of treatments by <b>AIR</b> :		
14. Avg. cost (\$) per acre for a single <b>AIR</b> application:		
Ground Applications		
15. Avg % acres treated by <b>GROUND</b>		
16. Avg no. of treatments by <b>GROUND</b> :		
17. Avg. cost (\$) per acre for a single <b>GROUND</b> application:		
<b>Insect Management Fees:</b> Estimate the cost (\$) of insect management fees paid by growers to pest control advisors.	Fall Lettuce (Sep - Nov)	Spring Lettuce (Dec-Mar)
18. % acres where insect monitoring, scouting and sampling was conducted:		
19. Avg no.of field visits per week:		
20. Estimated <b>cost</b> (\$) per acre charged to grower for <b>monitoring/advisory</b> :		
Comments:		

Please return this survey form to:

John Palumbo, University of Arizona, Yuma Agricultural Center

FAX: 928-782-1940

Email: jpalumbo@ag.arizona.edu

# Fall Lettuce (Sep-Nov)

Part 2.

	Pest	% Acres pest was present	% Acres treated for pest	No. of <u>Foliar</u> sprays applied	Avg cost \$ of a single f <u>oliar</u> spray	
21	Seedling Pests -ants, earwigs, crickets, darkling beetles, etc.					
22	Flea beetles					
23	Leafminers					
24	Salt marsh caterpillar					
25	Beet armyworm					
26	Cabbage looper					
27	Corn earworm					
28	Silverleaf whitefly					
29	Green peach aphid					
30	Foxglove aphid					
31	Lettuce aphid					
32	Thrips					
33	Lygus / False Chinch Bug					
34	Three-corned Alfafa Hopper					
35	Grasshoppers					
36	Trash bugs					
37	Other					

		% acres treated	No. of applications	Cost \$ per acre
38	Sprinkler chemigation treatments applied at stand establishment .			
39	Soil-applied insecticide used (Admire, generic imidacloprid, Platinum, Venom, Scorpion:			
40	Soil-applied insecticide used (Coragen or Durivo):			

# Spring Lettuce (Dec-Mar)

Part 2.

Pest		% Acres pest was present	% Acres treated for pest	 Avg cost \$ of a single f <u>oliar</u> spray	
21	Seedling Pests -ants, earwigs, crickets, darkling beetles, etc.				
22	Flea beetles				
23	Leafminers				
24	Salt marsh caterpillar				
25	Beet armyworm				
26	Cabbage looper				
27	Corn earworm				
28	Silverleaf whitefly				
29	Green peach aphid				
30	Foxglove aphid				
31	Lettuce aphid				
32	Thrips				
33	Lygus / False Chinch Bug				
34	Three-corned Alfafa Hopper				
35	Grasshoppers				
36	Trash bugs				
37	Other				

		% acres treated	No. of applications	Cost \$ per acre
38	Sprinkler chemigation treatments applied at stand establishment .			
39	Soil-applied insecticide used (Admire, generic imidacloprid, Platinum, Venom, Scorpion:			
40	Soil-applied insecticide used (Coragen or Durivo):			-

Part 3.	Fall Lettuce (September -November)				
	Acres (%) treated with this product	Avg no. of applications			
Insecticide	tilis product	аррисацонз			
Orthene (acephate)					
Dimethoate					
MSR					
Diazinon					
Malathion					
Lannate					
Larvin					
Pyrethroids - Foliar					
Pyrethroids - Chemigation					
Imidacloprid (Admire Pro)					
Imidacloprid (Generics- e.g., Alias)					
Venom / Scorpion (soil)					
Venom / Scorpion (foliar)					
Assail					
Belay					
Actara					
Endigo					
Closer					
Oberon					
Movento					
Fulfill					
Beleaf					
Torac					
Avaunt					
Intrepid					
Proclaim					
Success /Entrust					
Radiant					
Coragen (Foliar)					
Coragen (Soil)					
Durivo					
Voliam Xpress					
Voliam Flexi					
Belt					
Vetica					
Agrimek (ABBA)					
Azadirachtin/Neem products					
Bt (Dipel/Javelin/Xentari)					
Other					

Part 3.	Spring Lettuce (December-March)			
lung attaida	Acres (%) treated with this product	Avg no. of applications		
Insecticide	tins product	арриосполо		
Orthene (acephate)				
Dimethoate				
MSR				
Diazinon				
Malathion				
Lannate				
Larvin				
Pyrethroids - Foliar				
Pyrethroids - Chemigation				
Imidacloprid (Admire Pro)				
Imidacloprid (Generics- e.g., Alias)				
Venom / Scorpion (soil)				
Venom / Scorpion (foliar)				
Assail				
Belay				
Actara				
Endigo				
Closer				
Oberon				
Movento				
Fulfill				
Beleaf				
Torac				
Avaunt				
Intrepid				
Proclaim				
Success /Entrust				
Radiant				
Coragen (Foliar)				
Coragen (Soil)				
Durivo				
Voliam Xpress				
Voliam Flexi				
Belt				
Vetica				
Agrimek (ABBA)				
Azadirachtin/Neem products				
Bt (Dipel/Javelin/Xentari)				
Other				

#### Part 4.

		Α		E	3	(	C		D		E
		% Acres		% Acres treated for this disease		No. of fungicide applications required to control this disease		Cost \$ of a single application per / acre (include application cost)		% Reduction in yield due to this disease	
	Pathogen	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
40	Bottom rot (Rhizoctonia)										
41	Damping off										
42	Downy mildew										
43	Fusarium wilt										
44	Gray mold (Botrytis)										
45	Powdery mildew										
46	Sclerotinia drop (minor)										
47	Sclerotinia drop (sclerotiorum)										
48	Bacterial diseases						· ·				
49	Nematodes (type?)										
50	Lettuce big vein										
51	Other virus diseases										

	Fall Lettuce (September -November)				Lettuce per-March)
Fungicide	Acres (%) treated with this product	Avg no.of times treated with product		Acres (%) treated with this product	Avg no.of times treated with product
Actigard					
Aliette					
Other phosphite fungicides					
Botran					
Cannonball					
Cabrio					
Copper based fungicides					
Contans					
Curzate					
Dithane (Manzate)					
Endura					
Flint					
Forum					
Fontelis					
Merivon					
Potassium bicarbonate					
Presidio					
Previcur Flex					
Quadris					
Quintec					
Rally					
Reason					
Revus					
Ridomil Gold					
Rovral (Iprodione)					
Serenade					
Sonata					
Sulfur, dusting					
Sulfur, wettable					
Switch					
Taegro					
Tanos					
Zampro					
Other					

	Acres treated Application method (% applied)			Estimated cost (\$/ac) including application			
Herbicide	(%)	Ground	Air	Chemigation	Ground	Air	Chemigation
Kerb (Head Lettuce only)							
Prefar							
Balan							
Select (and generics)							
Select Max							
Prism, Arrow, Intensity							
Poast (Vantage, Segment)							

	Acres treated Application method (% applied)				Estimated cost (\$/ac) including application		
Non-chemical control	(%)	Ground	Air	Chemigation	Ground	Air	Chemigation
Cultivation							
Hand Hoeing							

Weed	% Infested acres
Common Purslane	
Pigweed	
Groundcherry	
Spurge	
Sunflower	
Clover	
Malva	
Morninglory	
Knotweed	
Marstail	
Russian Thistle	
London Rocket	
Sphepardspurse	
Sowthistle	
Nettleleaf Goosefoot	
Lambsquarters	
Sahara Mustard	
Nutsedge	
Annual Bluegrass	
Cannarygrass	
Wild Oat	
Volunteer Grain	
Barnyard Grass	
Junglerice	
Cupgrass	
Sprangletop	
Feather Fingergrass	
Sandbur	
Foxtail	
Rabbitsfoot Grass	
Other	