

USDA NRCS CIG #68-3A75-6-108
“Demonstrate and Advance the Undercutter
Method for Winter Wheat – Summer Fallow
Farming in the Inland Pacific Northwest”

PNW Undercutter Project
February 2011 Final Progress Report #8



**Washington Association of Wheat Growers
Administrator of the PNW Undercutter Project
109 East First Ave., Ritzville, WA 99169
1-800-598-6890 www.wawg.org**

March 17, 2011

Gregorio Cruz
Branch Chief, Conservation Improvement Programs Branch
Room 5233-S
1400 Independence Avenue, SW
Washington, DC 20250

Dear Gregorio:

This is the final report for USDA NRCS CIG #68-3A75-6-108. The grant is entitled "Demonstrate and Advance the Undercutter Method for Winter Wheat – Summer Fallow Farming in the Pacific Northwest". This grant addresses the natural resource concerns for soil and atmospheric resources, through cost share to growers to reduce soil erosion and airborne dust particles originating from the summer-fallowed soils in the summer fallow – winter wheat region of the Pacific Northwest.

Sincerely,

Michelle Hennings, Project Director – PNW Undercutter Project
and Director of Finance and Administration
Washington Association of Wheat Growers
109 East First Ave., Ritzville, Washington 99169

Attached:
Progress Report February, 2010
Appendixes A to E
Financial Reports

Grantee Name:

Washington Association of Wheat Growers
109 East First Avenue
Ritzville, Washington 99169
Phone: (509)659-0610

Project Title:

Demonstrate and Advance the Undercutter Method for
Winter Wheat – Summer Fallow Farming in the Inland Pacific Northwest.
(USDA NRCS CIG 68-3A75-6-108)

Project Director:

Michelle Hennings

Contact Information:

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Period Covered by Report:

February 6, 2010 thru February 6, 2011

Project End Date:

February 6, 2011

Work Performed:

1. A final total of forty-seven EQIP-eligible growers from Washington State and Oregon State completed the original three-year agreement August 6, 2009. Their agreement was to commit at least 160 acres yearly to the use of the undercutter as required by the Pacific Northwest Undercutter Project. Those growers consented to continue to provide data on their use of the undercutter during 2010 without the 160 acre per year commitment.
2. A listing of participating grower information is included in Appendix A. Specific equipment information for each grower is included in Appendix B. The cost-share payment and taxpayer identifying number of each grower is included in Appendix C
3. The Project Manager contacted the individual growers to collect data related to their spring use of the undercutter, *2010 Spring Undercutter interview* (Appendix D). The growers were also contacted to collect data on their summer operations and harvest their project acres planted in the fall of 2009, *2010 Fall Undercutter*

Interview (Appendix E). The interviews also collected total farm equipment use data in anticipation of an economic analysis of the effectiveness of the project. A preliminary report, *Economics of Wind Erosion Control*, of that analysis is included in Appendix I.

4. Informational displays were presented at the Washington Association of Wheat Growers Convention and The Oregon-Idaho Grains Conference.

Results, Accomplishments, Lessons Learned:

1. The *2010 Spring Undercutter Grower Interviews* (Appendix D) and the *2010 Fall Undercutter Interviews* (Appendix E) were completed, data has been incorporated in the tables, *Spring Interview Summary* (Appendix F) and *Fall Interview Summary* (Appendix G). A final written summary based on the tables is in process. When completed, it will be distributed to all participating growers, NRCS offices, FSA offices and Conservation District Offices in the participating PNW Undercutter Project counties.
2. The project was well received by the participating growers. Rating their participation in the on a scale of 1 to 10, resulted in an average of 8.8. When asked if the undercutter will continue to be a part of their farming operation, all growers said, "Yes." When asked if they objected to or had an issue with any of the individual operations as outlined in the *Application For Participation* (Appendix H), and recorded in the *Fall Undercutter Interview*, (Appendix E, Section 12, items a thru g) there were no negative replies.
3. Over all, growers were satisfied with the undercutter they purchased. The main complaints expressed by the growers were; lack of technical help in the initial adjustment of the undercutter so that it operated correctly, rapid wear of parts such as blades, and under-engineered parts such as bearings.
4. In 2010, 35 growers used the undercutter for spring primary tillage on 58,846 acres, or 20.7% of the total farm acres and 46.0% of 127,903 spring tilled acres as reported by the 45 interviewed growers. Four reasons given for not using the undercutter were high soil moisture, excessive residue, the need to till shallower than is possible with the undercutter and practicing chemical fallow. Attachments were used on the undercutter by 16 growers or 45.7% of growers using the undercutter.
5. Completing grower interviews as specified in the project agreement continued to be a problem. The geographic area including the eligible counties was reasonable considering the purpose of the project; however, it was quite large considering travel between growers. Grower availability and distance between growers were the two main problems. Diversity in the timing of field operations between growers was also a contributing factor. The result was more travel time and expense than originally anticipated. However, personal interviews with the growers are always more productive than are phone conversations and mailed interviews.
6. The original plan for accepting applications offered two sign-up periods six months apart. It was anticipated that a minimum of 25 applications would be

received each period. The first sign-up period produced 24 applications and the second period was far short of that number. Applications were received sporadically throughout 2007. The acceptance of applications was ended early 2008 so that 2 full years of field data in the form of interviews could be collected. Only one inquiry about the project was made after the cut-off date.

7. Availability of undercutters meeting the criteria of the Undercutter Project (Appendix H, section 4) were limited. The Undercutter Project area is small when compared with national farm equipment area. As a result it was hard to supply a relatively large number of a specific type equipment in a short time. As a result some growers waited several months for their undercutter to be delivered.
8. The timing of this project was unfortunate. It was a time of drought or near drought conditions. The conditions dictated that growers alter their usual timing of tillage operations. The most obvious was seeding. For almost all growers it was delayed until very late and then most “dusted in” the seed(sowed it shallow in dry soil in hopes sufficient moisture would be received to germinate the seed). Spring operations were also delayed waiting for the usual spring moisture that never developed.

EQIP and CIG Agreement Provisions:

1. A listing of EQIP-eligible growers, the dollar amount of their direct payment and their tax identifying numbers is found in Appendix C.
2. All growers have self-certified in Section 1 of the *Application For Participation* (Appendix H) as to their EQIP eligibility. Section C EQIP Payment, Part “a” of the *Limitation of the Conservation Innovative Grants Fiscal Year 2006 Announcement of Program Funding...* (http://www.nrcs.usda.gov/programs/cig/pdf_files/CIG06WebFinal.pdf) states that CIG awards are not limited by the payment limitation.

Appendixes

- Appendix A- Accepted Applicants - pages 5, 6 and 7
- Appendix B- Undercutter Inspections - pages 8 and 9
- Appendix C- Participating Grower Information – pages 10 and 11
- Appendix D- Spring Undercutter Interview– pages 12 and 13
- Appendix E- Fall Undercutter Interview – page 14
- Appendix F- Spring Interview Summary – pages 17 thru 25
- Appendix G- Fall Interview Summary- pages 26 thru 31
- Appendix H- Application for Participation- pages 32 and 33
- Appendix I- Economics of Wind Erosion Control- pages 34 thru 40

Financial

- Financial Status Reports – pages 41, 42, 43, 44, and 45

Received and Approved Applications

First Applicants: 24 (Washington 16 - Oregon 9)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved
Last	First								
1	Anderson Carl	2771 O'Conner Street	Richland	WA	99352	Benton	(509)786-8574	09/27/06	11/15/2006
2	Berg Partnership	P.O. Box 127	Patterson	WA	99345	Benton	(509)786-1714	10/16/06	11/15/2006
3	Bracher Paul	76861 Myrick Rd.	Adams	OR	97810	Umatilla	(541)966-8659	10/27/06	11/15/2006
4	Christensen Brandon	73221 Alpine Rd.	Lexington	OR	97839	Morrow	(541)571-2510	10/30/06	11/15/2006
5	Christensen Ivar	1915 Alleluia Ave.	Hermiston	OR	97838	Morrow	(541)564-6387	10/03/06	11/15/2006
6	Cochrane Kelly	Box 87	Kahlotus	WA	99335	Franklin	(509)282-3316	10/02/06	11/15/2006
7	Franz Ranch Inc(Randall)	654 West Leisle Rd.	Ritzville	WA	99169	Adams	(509)760-5118	10/31/06	11/15/2006
8	Gerhrke Merle	34718 Old Hiway 320	Echo	OR	97826	Umatilla	(541)376-8118	10/19/06	11/15/2006
9	Hudlow Inc.(Wayde)	P.O. Box 118	Connell	WA	99326	Franklin	(509)282-3412	10/24/06	11/15/2006
10	Jones Alan	170 S. Beckley Rd.	Benge	WA	99105	Adams	(509)887-2302	10/04/06	11/15/2006
11	Kelly Michael H.	6536 Freebridge Rd.	The Dalles	OR	97058	Wasco	(509)296-1057	10/30/06	11/15/2006
12	Kilkenny John	79074 Highway 74	Heppner	OR	97836	Morrow	(541)676-9910	10/31/06	11/15/2006
13	Kregger Ryan	754 Maxfield Rd.	Touchet	WA	99360	Walla Walla	(509)394-0160	09/22/06	11/15/2006
14	Kulm Randall	P.O. Box 396	Lind	WA	99341	Adams	(509)677-8823	10/13/06	11/15/2006
15	Maier Eric	1037 E. Tokio Rd.	Ritzville	WA	99169	Adams	(509)659-1373	10/05/06	11/15/2006
16	Moore Farms (C. Tom)	901 Parkside Dr.	Prosser	WA	99350	Benton	(509)786-1624	10/25/06	11/15/2006
17	Pearson Davis	53502 S. Travis Rd.	Prosser	WA	99350	Benton	(509)786-3638	10/27/06	11/15/2006
18	Pence Thomas	3 E. Gillis Rd.	Lind	WA	99341	Adams	(509)677-3263	10/09/06	11/15/2006
19	Rietmann Tom	Box 372, 10606 Ajax Ln.	Condon	OR	97823	Gilliam	(541)384-2933	09/29/06	11/15/2006
20	Smith Steve	44502 W. Stephen Rd.	Prosser	WA	99350	Benton	(509)786-9016	10/05/06	11/15/2006
21	Thompson Vic	P.O. Box 102	Adams	OR	97810	Umatilla	(541)969-7252	10/18/06	11/15/2006
22	Uhrich Randy	1630 Overlook Dr.	Wenatchee	WA	98801	Douglas	(509)662-3808	09/25/06	11/15/2006
23	Welp N. J.	12888 Lower Rock Creek Ln	Arlington	OR	97812	Gilliam	(541)454-2548	10/25/06	11/15/2006
24	Wiswall Ranch (Reed)	1812 Neff Jones Rd.	Pasco	WA	99301	Frank./Bent.	(509)547-5431	10/31/06	11/15/2006

Second Applicants: 5 (4 Washington - 1 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved
Last	First								
25	Adams Farm Partnership	340 Rd. J SE	Coulee City	WA	99115	Douglas	(509)681-0181	12/04/06	2/14/2007
26	Anderson, Brad	52965 Highway 207	Heppner	OR	97836	Gilliam	(541)454-2199	01/10/07	2/14/2007
27	Koch, Allan (A. K. Farms, W.F. Gould Ranches Inc.	974 East Weber Rd.	Ritzville	WA	99169	.Adams	(509)659-1583	01/03/06	2/14/2007
28	David Roseberry	3407 S. Conway Dr.	Kennewick	WA	99337	Benton	(509) 586-9489	12/28/06	2/14/2007
29	Wake, Dean	62611 South Piert Road	Kennewick	WA	99337	Benton	(509)586-3642	01/13/07	2/14/2007

Received and Approved Applications Continued

Third Applicants: 2 (1 Washington - 1 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved	
Last	First									
30	Christen	Howard	10104 N. McBee Rd.	Prosser	WA	99350	Benton	(509)786-2376	03/01/07	3/14/2007
31	Perkins	Curtis	71062 Perkins Rd.	Echo	OR	97826	Morrow	(541)376-8166	02/20/07	3/14/2007

Fourth Applicants: 1 (1 Washington - 0 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved	
Last	First									
32	Lyle	Rex	503 West 8th Ave.	Ritzville	WA	99169	Adams	(506)659-1078	03/21/07	4/11/2007

Fifth Applicants: 3 (2 Washington - 1 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved	
Last	First									
33	Mortor	Roger	75150 Barclay Lane	Heppler	OR	97836	Morrow	(541)989-8521	05/08/07	5/21/2007
34	Simonson	Paul	2089 N. Anderson Rd.	Ritzville	WA	99169	Adams	(509)659-0580	05/10/07	5/21/2007
35	Wiley	Chris	17302 West County Well Rd.	Prosser	WA	99350	Benton	(509)786-2408	04/02/07	5/21/2007

Sixth Applicants: 1 (1 Washington - 0 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved	
Last	First									
36	Schafer	Derek	1101 N Selvers Lane	Ritzville	WA	99169	Adams	(509)660-0086	05/21/07	5/28/2007

Seventh Applicants: (2 Washington - 1 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved	
Last	First									
37	Jantz	Melvin K	P.O. Box 222.	Odessa	WA	99159	Adams	(509)982-0046	08/06/07	8/21/2007
38	Melcher	Jani	P.O. Box 185	Lind	WA	99341	Adams	(509)677-3258	08/14/07	9/5/2007
39	Thorne.	M & T	81713 Hwy 37	Pendelton	OR	97801	Umatilla	(541)310-9038	08/13/07	8/21/2007

Eighth Applicants: (0 Washington - 1 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved	
Last	First									
40	Leber	Tim	51169 Phillips Rd.	Milton-Freewater	OR	97862	Umatilla	(509)520-1201	08/20/07	8/21/2007

Received and Approved Applications Continued

Ninth Applicants: (1 Washington - 1 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved
Last	First								
41	Kemble	P.O. Box 404	Ritzville	WA	99169	Adams	509)659-1368	0926/07	10/12/2007
42	Weimar	64486 Clem Ln.	Arlington	OR	97812	Gilliam	541)384-423	09/17/07	10/12/2007

Tenth Applicants: (1 Washington - 1 Oregon)

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved
Last	First								
43	Dewald	1058 East Urquhart Rd.	Ritzville	WA	99169	Adams	509)659-0441	12/17/07	12/24/2007
44	Plateau Farm	19028 Montague Lane	Arlington	OR	97812	Gilliam	541)454-287	12/20/07	1/16/2008

Eleventh Applicants 1 Washington, 1 Oregon

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved
Last	First								
45	Sharpe	580 Wandering Road	Mabton	WA	98935	Yakima	509)894-4026	01/18/08	2/14/2008
46	Sorey	634 South Cold Springs F	Pendleton	OR	97801	Umatilla	541)267-7822	01/31/08	2/14/2008

Twelfth Applicants: 1 Washington, 0 Oregon

Name		Address	City	State	Zip	County	Phone Number	Date Received	Date Approved
Last	First								
47	Pierson	P.O. Box J	Connell	WA	99326	Adams	509-539-9304	02/25/08	3/3/2008

Grower Undercutter Information

1	Name		Address	City	State	Implement Make	Fertilizer Capable	Model No.	Serial No.
	Last	First							
1	Adams Farm Partnership		340 Rd. J SE	Coulee City	WA	Haybuster	Yes	3200-33	GJ50800
2	Anderson	Brad	52965 Highway 207	Hepner	OR	Great Plains	Yes	9533PP	1056EE
3	Anderson	Carl	2771 O'Conner Street	Richland	WA	Great Plains	Yes	9540PP	1068EE
4	Bracher	Paul	76861 Myrick Rd.	Adams	OR	Great Plains	Yes	9540PP	1044EE
5	Berg Partnership		P.O. Box 127	Patterson	WA	Haybuster	Yes	2300-37	GJ50400
6	Christen	Howard	10104 N. McBee Rd.	Prosser	WA	Great Plains	Yes	9540PP	1072EE
7	Christensen	Brandon	73221 Alpine Rd.	Lexington	OR	Great Plains	Yes	9533PP	1076EE
8	Christensen	Ivar	1915 Alleluia Ave.	Hermiston	OR	Great Plains	Yes	5933PP	1065EE
9	Cochrane	Kelly	Box 87	Kahlotus	WA	Haybuster	Yes	3200-33	GJ50900
10	Dewald	Rob	1058 East Urquhart Rd.	Ritzville	WA	Orthman	Yes	3-33	200-602
11	Franz Ranch Inc(Randall)		654 West Leisle Rd.	Ritzville	WA	Great Plains	Yes	9540PP	1067EE
12	Gerhrke	Merle	34718 Old Hiway 320	Echo	OR	Orthman	Yes	520607	910-494
13	Hudlow Inc.(Wayde)		P.O. Box 118	Connell	WA	Haybuster	Yes	3200-34	GJ50300
14	Jantz	Melvin K	P.O. Box 222	Odessa	WA	Great Plains	Yes	9533PP	1060EE
15	Jones	Alan	170 S. Beckley Rd.	Benge	WA	Great Plains	Yes	9533PP	1050EE
16	Kelly	Michael H.	6536 Freebridge Rd.	The Dalles	OR	Great Plains	Yes	9533PP	1058EE
17	Kemble	Dennis	P.O. Box 404	Ritzville	WA	Great Plains	Yes	9533PP	1082EE
18	Kilkenny	John	79074 Highway 74	Hepner	OR	Great Plains	Yes	9540PP	1034EE
19	Koch, Allan (A. K. Farms, Inc.)		974 East Weber Rd.	Ritzville	WA	Haybuster	Yes	3200-33	GJ50600
20	Kregger	Ryan	754 Maxfield Rd.	Touchet	WA	Great Plains	Yes	9533PP	1061EE
21	Kulm	Randall	P.O. Box 396	Lind	WA	Great Plains	Yes	9540PP	1066EE
22	Eubanks	Larry	19028 Montague Lane	Arlington	OR	Great Plains	Yes	9533PP	1083EE
23	Leber	Tim	51169 Phillips Rd.	Milton-Freewater	OR	Great Plains	Yes	9533PP	1075EE
24	Lyle	Rex	503 West 8th Ave.	Ritzville	WA	Great Plains	Yes	9540-PP	1046EE
25	Maier	Eric	1037 E. Tokio Rd.	Ritzville	WA	Great Plains	Yes	9526-4PP	1057EE
26	Melcher	Jani	P.O. Box 185	Lind	WA	Haybuster	Yes	3200-37	GJ50000
27	Moore Farms (C. Tom)		901 Parkside Dr.	Prosser	WA	Great Plains	Yes	9540PP	1047EE
28	Morter	Roger	75150 Barclay Lane	Hepner	OR	Great Plains	Yes	9540PP	1052EE
29	Pearson	Davis	53502 S. Travis Rd.	Prosser	WA	Great Plains	Yes	9540PP	1045EE
30	Pence	Thomas	3 E. Gillis Rd.	Lind	WA	Great Plains	Yes	9533PP	1049EE
31	Perkins	Curtis	71062 Perkins Rd.	Echo	OR	Great Plains	Yes	9533PP	1075EE
32	Pierson	John	P.O. Box J	Connell	WA	Haybuster	Yes	3200-33	GJ51400
33	Rietmann	Tom	Box 372, 10606 Ajax Ln.	Condon	OR	Haybuster	Yes	3200-33	GJ50700
34	David Rosebery								
34	W.F. Gould Ranches Inc.		3407 S. Conway Dr.	Kennewick	WA	Haybuster	Yes	3200-33	GJ51200
35	Schafer	Derek	1101 N. Seivers Lane	Ritzville	WA	Haybuster	Yes	3200-37	GJ51000
36	Sharpe	Andrew	580 Wandling Road	Mabton	WA	Great Plains	Yes	9533PP	1084EE

Grower Undercutter Information Continued

37	Simonson	Paul	2089 N. Anderson Rd.	Ritzville	WA	Haybuster	Yes	3200-33	GJ50200	37
38	Smith	Steve	44502 W. Stephen Rd.	Prosser	WA	Haybuster	Yes	3200-37	GJ50100	38
39	Sorey	Tom	78634 S. Cold Springs Rd.	Pendleton	OR	Great Plains	Yes	9540PP	1087EE	39
40	Thompson	Vic	P.O. Box 102	Adams	OR	Great Plains	Yes	9533PP	1062EE	40
41	Thorne	Todd	81713 Hwy 37	Pendleton	OR	Great Plains	Yes	9533PP	1079EE	41
42	Uhrich	Randy	1630 Overlook Dr.	Wenatchee	WA	Great Plains	Yes	9533PP	1063EE	42
43	Wake	Dean	62611 South Piert Road	Kennewick	WA	Haybuster	Yes	3200-33	GJ51100	43
44	Weimar	Michael	64486 Clem Ln.	Arlington	OR	Haybuster	Yes	3200-33	GJ51300	44
45	Welp	N. J.	12888 Lower Rock Creek Ln	Arlington	OR	Great Plains	Yes	9533PP	1064EE	45
46	Wiley	Chris	17302 West County Well Rd.	Prosser	WA	Great Plains	Yes	9540PP	1070EE	46
47	Wiswall Ranch (Reed)		1812 Neff Jones Rd.	Pasco	WA	Haybuster	Yes	3200-33	GJ50500	47

Participating Grower Information

		Grower Information							Cost Share Payment	Tax I.D. Number
Last Name	First Name	Farm Name	Address	City	State	Zip	County			
1	Adams	Ben	Adams Farms	340 Rd. J SE	Coulee City	WA	99115	Douglas	\$18,415.00	91-1329245
2	Anderson,	Brad	Triangle Ranch	14957 Heritage Ln	Arlington	OR	97812	Gilliam	\$15,696.89	93-1283802
3	Anderson	Carl		2771 O'Conner Street	Richland	WA	99352	Benton	\$13,305.00	535-96-2139
4	Berg	Frank	Berg Partnerships	P.O. Box 127	Patterson	WA	99345	Benton	\$18,240.00	91-1891678
5	Bracher	Paul	Bracher Farms	76861 Myrick Rd.	Adams	OR	97810	Umatilla	\$15,730.00	93-1331142
6	Christen	Howard		10104 N. McBee Rd.	Prosser	WA	99350	Benton	\$14,601.50	91-1932589
7	Christensen	Brandon		73221 Alpine Rd.	Lexington	OR	97839	Morrow	\$13,230.00	533-96-0368
8	Christensen	Ivar		1915 Alleluia Ave.	Hermiston	OR	97838	Morrow	\$13,230.00	531-50-7523
9	Cochrane	Kelly		Box 87	Kahlotus	WA	99335	Franklin	\$18,420.00	535-50-0002
10	Dewald	Rob	Dewald Farms	1058 East Urquhart Rd.	Ritzville	WA	99169	Adams	\$16,432.50	91-1491232
11	Franz	Randall	Franz Ranch Inc	654 West Leisle Rd.	Ritzville	WA	99169	Adams	\$15,707.50	538-52-7587
12	Gehrke	Merle		34718 Old Hiway 320	Echo	OR	97826	Umatilla	\$16,460.00	531-38-0746
13	Hudlow	Wayde	Hudlow Inc.	P.O. Box 118	Connell	WA	99326	Franklin	\$18,240.00	91-0965065
14	Jantz	Melvin	MKJ Farms Inc.	P.O. Box 222	Odessa	WA	99159	Adams	\$13,896.50	91-1535047
15	Jones	Alan		170 S. Beckley Rd.	Benge	WA	99105	Adams	\$11,480.00	534-58-5513
16	Kelly	Michael H.		6536 Freebridge Rd.	The Dalles	OR	97058	Wasco	\$12,167.50	543-98-9205
17	Kemble	Dennis		P.O. Box 404	Ritzville	WA	99169	Adams	\$13,380.00	531-44-9076
18	Kilkenny	John		79074 Highway 74	Heppner	OR	97836	Morrow	\$15,696.50	541-70-1559
19	Koch	Allan	A. K. Farms, Inc	974 East Weber Rd.	Ritzville	WA	99169	Adams	\$18,240.00	91-1742062
20	Kregger	Ryan		754 Maxfield Rd.	Touchet	WA	99360	Walla Walla	\$13,305.00	534-78-3554
21	Kulm	Randall		P.O. Box 396	Lind	WA	99341	Adams	\$15,755.00	532-48-4495
22	Labbe	Randy	Plateau Farms	19028 Montague Lane	Arlington	OR	97812	Gilliam	\$13,980.00	93-0527279
23	Leber	Tim		51169 Phillips Rd.	Milton-Freewater	OR	97862	Umatilla	\$13,230.00	542-96-0411
24	Lyle	Rex		503 West 8th Ave.	Ritzville	WA	99169	Adams	\$13,579.00	91-2163030
25	Maier	Eric		1037 E. Tokio Rd.	Ritzville	WA	99169	Adams	\$10,630.00	536-48-6526
26	Melcher	Jani	Melchers LLC	P.O. Box 185	Lind	WA	99341	Adams	\$18,420.00	20-8024513
27	Moore	C. Tom	Moore Farms	901 Parkside Dr.	Prosser	WA	99350	Benton	\$13,305.00	91-1350507
28	Morter	Roger		75150 Barclay Lane	Heppner	OR	97836	Morrow	\$16,730.00	540-76-5814
29	Pearson	David		53502 S. Travis Rd.	Prosser	WA	99350	Benton	\$13,305.00	535-60-4830
30	Pence	Thomas	(538-46-9100)	3 E. Gillis Rd.	Lind	WA	99341	Adams	\$13,152.50	80-0010839
31	Perkins	Curtis		71062 Perkins Rd.	Echo	OR	97826	Morrow	\$13,230.00	80-0308479
32	Pierson	John	KAP Production	P.O. Box J	Connell	WA	99326	Adams	\$18,420.00	91-1344234
33	Rietmann	Tom	Box 372, 10606 Ajax Ln.	Condon	Condon	OR	97823	Gilliam	\$18,240.00	540-70-7807

Participating Grower Information Continued

Grower Information										Cost Share	Tax I.D.
Last Name	First Name	Farm Name	Address	City	State	Zip	County	Payment	Number		
34	Roseberry	David	W.F. Gould Ran	3407 S. Conway Dr.	Kennewick	WA	99337	Benton	\$18,240.00	91-0905282	
35	Schafer	Derek		1101 N Seivers Lane	Ritzville	WA	99169	Adams	\$18,420.00	533-94-2055	
36	Sharpe	Andrew		580 Wandering Road	Mabton	WA	98935	Yakima	\$13,621.50	538-52-0651	
37	Simonson	Paul	S4 Ag	2089 N. Anderson Rd.	Ritzville	WA	99169	Adams	\$18,240.00	518-64-9663	
38	Smith	Steve		44502 W. Stephen Rd.	Prosser	WA	99350	Benton	\$18,240.00	538-40-7900	
39	Sorey	Tom		78634 South Cold Springs Rd.	Pendleton	OR	97801	Umatilla	\$13,980.00	532-56-1321	
40	Thompson	Vic	Lieuallen Farms	P. O. Box 102	Adams	OR	97810	Umatilla	\$13,230.00	91-1152489	
41	Thorne	Todd	M & T Thorne	81713 Hwy 37	Pendleton	OR	97801	Umatilla	\$13,230.00	93-1192528	
42	Uhrich	Randy		1630 Overlook Dr.	Wenatchee	WA	98801	Douglas	\$13,380.00	538-58-5065	
43	Wake	Dean		62611 South Piert Road	Kennewick	WA	99337	Benton	\$18,420.00	539-30-5058	
44	Welp	N. J.		12888 Lower Rock Creek Ln	Arlington	OR	97812	Gilliam	\$13,230.00	541-56-1399	
45	Weimer	Micheal		64486 Clem Ln.	Arlington	OR	97812	Gilliam	\$18,240.00	544-56-6870	
46	Wiley	Chris		17302 West County Well Rd.	Prosser	WA	99350	Benton	\$13,305.00	538-42-3704	
47	Wiswall	Reed	Wiswall Ranch	1812 Neff Jones Rd.	Pasco	WA	99301	Frank./Bent.	\$18,420.00	91-2086117	

2010 Spring Undercutter Interview

Grower Name: _____ Grower ID Number: _____ Date: _____

Total Farm Acres: _____ C.R.P. Acres: _____ Spring tillage acres: _____ Undercutter: _____

Traditional tillage: _____ Chem Fallow: _____ Other:(describe) _____

1. If you did not use the undercutter for primary tillage, what was the reason? _____

If you didn't use the undercutter, what were your primary tillage operations? _____

Disc and sweep _____

2. If you used the undercutter, please rate your satisfaction with the performance on a scale of 1 (lowest) to 5(highest): _____

3. Please explain any changes in undercutter use from the original project agreement: _____

4. If you had an attachments behind your undercutter, did it do an adequate job? _____ Type: _____

5. If you did not have an installed attachments, did the undercutter do an adequate job? _____

6. Did you do any field operations last fall? _____ If so, what were they? _____

7. Do you have a current soil test(within the last 5 years)? _____

Did you or will you fertilize according to the analysis or recommendation? _____

Did you use the undercutter to fertilize during primary tillage? _____ Acres: _____ Rate: _____

Method used to fertilize where the undercutter was not used? _____

Number of acres? _____ Rate: _____

8. Did you apply glyphosate prior to primary tillage? _____ Rate: _____

Number of acres: _____ Brand: _____

9. Date of primary tillage: _____

10. Did you perform tillage perpendicular to the prevailing winds? Yes _____ If no, why? _____

11. Did you reseed any of your 2009 Undercutter Project fall seeded acres? _____

Date seeded: _____ Acres: _____ Variety: _____ Rate: _____

Date seeded: _____ Acres: _____ Variety: _____ Rate: _____

12. Did you reseed any of your 2009 Non-Undercutter Project fall seeded acres? _____

Date seeded: _____ Acres: _____ Variety: _____ Rate: _____

Date seeded: _____ Acres: _____ Variety: _____ Rate: _____

Date seeded: _____ Acres: _____ Variety: _____ Rate: _____

Grower Name: _____ 0 _____ Grower ID Number: _____ 0 _____

2009 Undercutter Acreage _____

2010 Spring Undercutter Interview

Grower Name: 0 _____ Grower ID Number: 0 _____

2009 Undercutter Acreage

Operation	Date	Acres	Tooling		Ac./Hr.	Fuel Used per hr.	Type and cost/ac of Materials Used
			Tractor	(C)ustom, (R)ented Implement(s)			
Fall operation							
Reseeding							
Reseeding							

2009 Conventional Tillage Acreage

Operation	Date	Acres	Tooling		Ac./Hr.	Fuel Used per hr.	Type and cost/ac of Materials Used
			Tractor	(C)ustom, (R)ented Implement(s)			
Fall operation							
Reseeding							
Reseeding							

2010 Spring Tillage

Operation	Date	Acres	Tooling		Ac./Hr.	Fuel Used per hr.	Type and cost/ac of Materials Used
			Tractor	(C)ustom, (R)ented Implement(s)			
Spring Spraying							
Primary tillage							
Primary tillage							
Fertilize							

Comments: _____

2010 Fall Undercutter Interview

Grower Name: _____ **Phone:** _____ **Date:** _____
Email: _____ **Grower ID Number:** _____ **Cell:** _____
Farm Address: _____ **C.R.P. Acres:** _____ **Chem Fallow acres:** _____
Total Farm Acres: _____

1. 2010 Harvested Acres Following 2009 Undercutter Fallow
 a. Acres Harvested: _____
 b. Average Yield/A : _____ Acres: _____ **Materials/Rate Sprayed:** _____
 c. Broadleaf weed spray: _____

2. 2010 Harvested Acres Following 2009 Conventional (Non-Undercutter) Fallow
 a. Acres Harvested: _____
 b. Average Yield/A : _____ Acres: _____ **Materials/Rate Sprayed:** _____
 c. Broadleaf weed spray: _____

3. Fallow Acres in 2010
 a. Acres using undercutter: _____
 b. Number rodweeds on undercutter fallow: _____
 d. Acres of conventional tillage: _____
 c. Number rodweeds on conventional fallow: _____

4. Do you expect your bottom line profit to be higher or lower on your undercutter acreage compared to your conventional tillage acreage? Lower : _____ Higher : _____ Same : _____ Percent higher/lower: _____

5. Estimated crop year (August 2009-July 2010) precipitation (in.): _____ Percent higher (+)lower (-) than normal _____

2010 Harvested Wheat Crop

Operation	Date	Times Over	Tooling		Ac./Hr.	Fuel Used per hr.	Type and Rate of Materials Used
			(C)ustom, (R)ented	Implement(s)			
6. Undercutter Project Acres (Planted 2009)							
Spray Broadleafs							
Harvest							

2010 Fall Undercutter Interview

Grower Name: _____ 0 _____ Grower ID Number: _____ 0 _____ Date: 1/0/1900 _____

7. Non-Undercutter Project Acres(Planted 2009)

Spray Broadleafs									
Harvest									

8. 2010 Summer Fallow Acres

Rodweed(Undercut)									
Rodweed(Conventional)									

9. Rate your satisfaction with your participation in the Undercutter Project (Scale of 1 = Very Unsatisfied to 10 = Very Satisfied) _____
Why? _____

10. Will the Undercutter continue to be a part of your farming operation? Yes/No _____
Why? _____

11. Are you satisfied with the Undercutter you purchased? Yes/No _____
Why? _____

12. Listed below are the basic requirements of the Project. Please comment if each were applicable to your geographic area and your farming operation?
a. I agree to apply, at my cost, glyphosate herbicide at a minimum rate of 16 oz. per acre to the wheat stubble in the late winter(early spring) to control grassy weeds.

a. _____

2010 Fall Undercutter Interview

Grower Name: 0 Grower ID Number: 0 Date: 1/0/1900

b. I agree to conduct primary tillage with the undercutter at an approximate depth of 5 inches and perpendicular to the direction of the prevailing winds whenever possible.

b.

c. I agree to inject nitrogen fertilizer, at my cost, with the undercutter during primary tillage for the subsequent wheat crop as recommended by soiltest.

c.

d. I agree to rodweed only as needed to control weeds during the late spring and summer.

d.

e. I agree to plant winter wheat in late-August thru September if soil moisture is adequate, other wise after the onset of adequate fall rains.

e.

f. I understand I may use the undercutter immediately after harvest for Russian thistle or Kochia control if the weeds are present in large numbers.

f.

g. I understand I may chisel or subsoil the recently harvested wheat stubble in late fall, after consultation with the Project Manager, if the grain yield exceeded 35 rbushels per acre. The implement will have shanks spaced at least two feet apart and will be operated perpendicular to the prevailing wind direction whenever possible.

g.

2010 Spring Interview Summary

2010 Spring Interview Averages Summary

County:	All		Washington		Oregon		01		02		03	
	Ave.		Ave.		Ave.		Ave.		Ave.		Ave.	
Grower	6308.1		6785.1		5354.2		6777.3		6237.8		9000.0	
Total Farm Acres	1150.2	18.2% of farm acres	1639.7	24.2% of farm acres	1015	18.9% of farm acres	1174.3	17.3% of farm acres	2166.7	34.7% of farm acres	2050.0	22.7% of farm acres
CRP Acres	1307.7	20.7% of farm acres	779.8	11.5% of farm acres	987	18.4% of farm acres	693.6	10.2% of farm acres	533.3	8.5% of farm acres	580.0	6.4% of farm acres
Acres Undercutter Used	1534.3	24.3% of farm acres	1708.9	25.2% of farm acres	1265	23.6% of farm acres	2004.0	29.5% of farm acres	1656.7	26.6% of farm acres	2750.0	30.6% of farm acres
Acres Undercutter Not Used	4.6		4.5		4.1		3.4		4.0		5.0	
Undercutter Satisfaction (if used)	0.46	(46%)	0.27	(27%)	0.46	(46%)	0.50	(50%)	0.33	(33%)	0.50	(50%)
Used attachment**												
Attachment type***												
2009 Fall Undercutter Weed Control**	0.31	(31%)	0.43	(43%)	0.53	(53%)	0.50	(50%)	0.56	(56%)	0.00	(0%)
2009 Undercutter Acres Reseeded	40		41		45		58		11.1		90	
2009 Non-Undercutter acres Reseeded	323.4		96.5		197.33		668.4		13.3		612.5	
Spring Glyphosate Acres	2006.6		2225.7		1915.9		2469.7		2135.6		1525.0	
Spring Glyphosate Rate (lb./Acid/A)	0.39		1		1		0.6		0.53		0.6	
Date of Primary Tillage*	100	April 10	95	April 4	109		92	April 2	92	April 2	152	June 1
Fertilizer Application Rate:												
lb. Nitrogen per Acre	44.0		45.3		47.2		51.5		36.1		47.5	
lb. Sulfur per Acre	4.7		4.9		5.00		4.5		4.0		5.0	
lb. Phosphate per acre	0		1.7		1		2.1		0		0	
Tillage Perpendicular to Wind****	0.67	(67%)	0.83	(83%)	0.47	(47%)	0.79	(79%)	1.00	(100%)	0.50	(50%)

County:	04		08		09		10		11		13	
	Ave.		Ave.		Ave.		Ave.		Ave.		Ave.	
Grower	8010.0		4000.0		6500.0		6452.6		4600.0		5286.7	
Total Farm Acres	1617	20.2% of farm acres	1300.0	32.5% of farm acres	3000	46.2% of farm acres	476.0	7.3% of farm acres	688.3	14.9% of farm acres	904.2	17.1% of farm acres
CRP Acres	2141.7	26.7% of farm acres	1300.0	32.5% of farm acres	0	0% of farm acres	1300.0	20.1% of farm acres	689	14.9% of farm acres	1040.0	19.7% of farm acres
Acres Undercutter Used	666.7	8.3% of farm acres	200.0	5.0% of farm acres	600	10.2% of farm acres	1020.0	15.8% of farm acres	1980	43% of farm acres	1123.0	21.2% of farm acres
Acres Undercutter Not Used	4.5		4.0		NA		4.7		5.0		4.6	
Undercutter Satisfaction (if used)	1.00	(100%)	1.00	(100%)	NA		0.40	(40%)	0.67	(67%)	0.50	(50%)
Used attachment**												
Attachment type***												
2009 Fall Undercutter Weed Control**	0.33	(33%)	0.00	(0%)	0.00	(0%)	0.60	(60%)	0.67	(67%)	0.50	(50%)
2009 Undercutter Acres Reseeded	27		40		0		117		0		15	
2009 Non-Undercutter acres Reseeded	433.3		240.0		0.0		408.0		40.00		133.3	
Spring Glyphosate Acres	2475.0		1200.0		1300.0		2300.0		1182.7		2081.7	
Spring Glyphosate Rate (lb./Acid/A)	0.52		0.48		0.48		0.54		1.62		0.77	
Date of Primary Tillage*	90	March, 30	100	April, 10	64	March, 5	120	(April, 29)	117	April 27	114	April, 23
Fallow Fertilizer Application Rate:												
lb. Nitrogen per Acre	47.3		76.0		0		37.6		43		63	
lb. Sulfur per Acre	7.7		15.0		0		0		0.00		65.0	
lb. Phosphate per acre	0		20		0		0		0		3	
Tillage Perpendicular to Wind****	1.00	(100%)	1.00	(100%)	0.00	(0%)	0.60	(60%)	0.67	(67%)	0.33	(33%)

Spring 2010

2010 Spring Interveiw Summary

County:	01												02			
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	01	02
Total Undercutter Project Average	8400	3000	3000	12000	4500	6132	9000	10000	4800	4400	5000	8000	6250	10400	6000	6000
Grower	200	200	200	3500	2000	1000	4900	100	650	0	200	2000	200	1290	2000	4000
Total Farm Acres	120	0	940	750	320	0	2000	900	830	0	750	800	0	2300	1500	850
CRP Acres	2100	1100	240	3800	500	2566	0	4000	1300	2300	1550	2000	4200	2400	500	2350
Acres Undercutter Used	5	NA	5	5	5	NA	4	5	5	N	5	5	NA	4	5	3
Acres Undercutter Not Used	0	NA	1	0	0	NA	1	1	1	NA	1	1	NA	1	1	0
Undercutter Satisfaction (if used)	0	NA	1	0	0	NA	2	1	4	NA	1	5	NA	2	1	0
Used attachment**	1	0	0	1	1	0	0	0	1	1	1	1	0	0	0	1
Attachment type***	160	25	0	100	60	0	160	0	0	0	0	140	10	160	0	0
2009 Fall Undercutter Weed Control**	1750	175	400	200	0	0	2400	500	992	110	580	0	1000	1250	0	0
2009 Non-Undercutter acres Reseeded	2900	0	1260	4500	820	2566	2000	4900	2130	2000	2300	2800	1700	4700	2000	3450
Spring Glyphosate Acres	0.48	0	0.69	0.69	0.67	0.39	0.6	0.48	0.45	0.48	0.52	0.52	1.25	0.52	0.6	0.39
Spring Glyphosate Rate (lb./Acid/A)	91	100	140	81	105	89	89	100	102	84	103	105	0	100	110	74
Date of Primary Tillage*	Fallow Fertilizer Application Rate:															

County:	02												03			04			05							
	03	04	05	06	07	08	09	10	11	12	13	14	01	02	03	04	05	06	07	08	09	10	11	12	13	14
Total Farm Acres	4250	12000	6000	6000	7000	3390	5500	12000	6000	12000	7030	5000	4000	6500	3300	2863	3000	5000	3000	3000	3000	3000	3000	3000	3000	3000
CRP Acres	1100	3000	2700	1800	2200	400	2300	3000	1100	1500	1350	2000	1300	3000	525	305	3000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Acres Undercutter Used	22143	0	750	400	100	1200	0	160	1000	2000	2825	1600	1300	0	400	1500	0	0	0	0	0	0	0	0	0	0
Acres Undercutter Not Used	1650	4000	760	1900	2400	0	1350	4200	1300	2000	0	0	200	600	1300	0	600	200	NA	NA	NA	NA	NA	NA	NA	NA
Undercutter Satisfaction (if used)	NA	NA	4	4	4	4	NA	5	5	4.5	4	5	4	NA	5	5	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Used attachment**	NA	NA	1	0	0	0	NA	0	1	1	1	1	1	NA	0	1	NA	1	NA	NA	NA	NA	NA	NA	NA	NA
Attachment type***	NA	NA	1	0	0	0	NA	0	1	1	1	1	1	NA	0	1	NA	1	NA	NA	NA	NA	NA	NA	NA	NA
2009 Fall Undercutter Weed Control**	1	1	1	0	0	0	1	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2009 Undercutter Acres Reseeded	0	40	60	0	0	0	0	0	180	0	10	70	40	0	0	426	0	0	0	0	0	0	0	0	0	0
2009 Non-Undercutter acres Reseeded	0	120	0	0	0	0	0	250	975	700	500	100	240	0	800	0	0	0	0	0	0	0	0	0	0	0
Spring Glyphosate Acres	1650	4000	1020	2300	2500	1200	1100	750	2300	3000	2825	1600	1200	1300	1700	1500	1300	1600	1600	1600	1600	1600	1600	1600	1600	
Spring Glyphosate Rate (lb./Acid/A)	0.48	0.42	0.54	0.77	0.69	0.42	0.43	0.69	0.48	0.52	0.34	0.69	0.48	0.48	0.49	0.6	0.48	0.69	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Date of Primary Tillage*	105	88	110	59	79	100	105	91	212	51	102	118	100	64	89	102	64	118	100	100	100	100	100	100	100	100
Date of Primary Tillage*	Fallow Fertilizer Application Rate:																									

lb. Nitrogen per Acre	50	45	55	0	25	30	50	50	45	50	55	37	76	0	50	50	0	50	0	0	0	0	0	0	0	0
lb. Sulfur per Acre	0	5	7	0	0	5	15	10	10	8	10	5	15	0	0	0	0	0	0	0	0	0	0	0	0	0
lb. Phosphate per acre	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
Tillage Perpendicular to Wind****	1	1	1	1	1	1	1	1	(1%)	0	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1

Spring2010

2010 Spring Interveiw Summary

Total Undercutter Project Average Continued

County:	10			11			13							
	03	04	05	01	02	03	04	05	06					
Grower	11000	11500	3600	NA	NA	6000	3400	4400	11200	5000	4700	2800	3020	5000
Total Farm Acres	1450	100	0	NA	NA	2000	65	0	2000	725	0	0	2500	200
CRP Acres	200	2600	1800	NA	NA	800	618	650	0	2500	800	160	280	2500
Acres Undercutter Used	200	3600	0	NA	NA	1000	1190	3750	4788	0	700	1250	0	0
Acres Undercutter Not Used	4	5	4.5	NA	NA	5	5	5	NA	5	5	4	5	4
Undercutter Satisfaction (if used)	0	1	0	NA	NA	1	1	0	NA	0	1	0	0	1
Used attachment**	0	1	0	NA	NA	1	1	0	NA	0	5	0	0	5
Attachment type***	1	0	1	NA	NA	0	1	1	1	1	1	0	0	0
2009 Fall Undercutter Weed Control**	0	0	160	NA	NA	0	0	0	30	0	0	0	60	0
2009 Undercutter Acres Reseeded	0	0	1240	NA	NA	0	0	120	800	0	0	0	0	0
2009 Non-Undercutter acres Reseeded	3900	2600	1800	NA	NA	2000	898	650	4600	2500	1200	1410	280	2500
Spring Glyphosate Acres	0.72	0.54	0.33	NA	NA	0.78	0.48	0.36	0.78	0.69	1.03	0.69	0.69	0.72
Spring Glyphosate Rate (lb./Acid/A)	182	100	125	NA	NA	110	69	172	124	60	162	100	140	95
Date of Primary Tillage*	Fallow Fertilizer Application Rate:													

Fallow Fertilizer Application Rate:

lb. Nitrogen per Acre	30	38	40	NA	NA	50	40	40	75	60	75	45	55	80
lb. Sulfur per Acre	0	0	0	NA	NA	0	0	0	10	20	10	5	10	10
lb. Phosphate per acre	0	0	0	NA	NA	0	0	0	0	20	0	0	0	0
Tillage Perpendicular to Wind****	0	0	1	NA	NA	1	1	0	1	1	0	0	0	0

County:	14	Ave.
Grower	01	
Total Farm Acres	2530	6308.1
CRP Acres	0	1150.2
Acres Undercutter Used	0	1307.7
Acres Undercutter Not Used	1200	1534.3
Undercutter Satisfaction (if used)	NA	4.6
Used attachment**	NA	0.46
Attachment type***	NA	
2009 Fall Undercutter Weed Control**	0	0.31
2009 Undercutter Acres Reseeded	0	40
2009 Non-Undercutter acres Reseeded	0	323.4
Spring Glyphosate Acres	1200	2006.6
Spring Glyphosate Rate (lb./Acid/A)	1.08	0.39
Date of Primary Tillage*	0	100

Fallow Fertilizer Application Rate:

lb. Nitrogen per Acre	NA	44.0
lb. Sulfur per Acre	NA	4.7
lb. Phosphate per acre	NA	0.01
Tillage Perpendicular to Wind****	0	0.67

* Dates are Julian Standard Calendar, Calendar included at ** 0=None, 1=Tread, 2=Tine Harrow, 3=Heavy Spike Harrow, 4=Rotar ***** No=0 Yes=1
 *** 0=None, 1=Tread, 2=Tine Harrow, 3=Heavy Spike Harrow, 4=Rotar ***** No=0 Yes=1
 County Codes:
 Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yakima - 09
 Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14

2010 Spring Interveiw Summary

Washington State Average	01															02		
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	01	02		
County:																		
Grower	8400	3000	3000	12000	4500	6132	9000	10000	4800	4400	5000	8000	6250	10400	6000	6000		
Total Farm Acres	200	200	200	3500	2000	1000	4900	100	650	0	200	2000	200	1290	2000	4000		
CRP Acres	120	0	940	750	320	0	2000	900	830	0	750	800	0	2300	1500	850		
Acres Undercutter Used	2100	1100	240	3800	500	2566	0	4000	1300	2300	1550	2000	4200	2400	500	2350		
Acres Undercutter Not Used	5	NA	5	5	5	NA	4	5	5	N	5	5	NA	4	5	3		
Undercutter Satisfaction (if used)	0	NA	1	0	0	NA	1	1	1	NA	1	1	NA	1	1	0		
Used attachment**	0	NA	1	0	0	NA	2	1	4	NA	1	5	NA	2	1	0		
Attachment type***	1	0	0	1	1	0	0	0	1	1	1	1	0	0	0	1		
2009 Fall Undercutter Weed Control**	160	25	0	100	60	0	160	0	0	0	0	140	10	160	0	0		
2009 Undercutter Acres Reseeded	1750	175	400	200	0	0	2400	500	992	110	580	0	1000	1250	0	0		
2009 Non-Undercutter acres Reseeded	2900	0	1260	4500	820	2566	2000	4900	2130	2000	2300	2800	1700	4700	2000	3450		
Spring Glyphosate Acres	0.48	0	0.69	0.69	0.67	0.39	0.6	0.48	0.45	0.48	0.52	0.52	1.25	0.52	0.6	0.39		
Spring Glyphosate Rate (lb./Acid/A)	91	100	140	81	105	89	89	100	102	84	103	105	0	100	110	74		
Date of Primary Tillage*	Fallow Fertilizer Application Rate:																	
lb. Nitrogen per Acre	30	60	45	30	95	50	40	60	55	50	68	45	50	43	45	25		
lb. Sulfur per Acre	0	10	5	0	18	0	0	10	0	0	5	0	5	10	0	4		
lb. Phosphate per acre	0	0	0	0	13	0	5	0	0	0	0	0	0	12	0	0		
Tillage Perpendicular to Wind****	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1		

Washington State Average	01															02		
	03	04	05	06	07	08	09	10	11	12	13	14	01	02				
County:																		
Grower	4250	12000	6000	6000	7000	3390	5500	12000	6000	12000	7030	5000	4000	6500	6785.1	Ave.		
Total Farm Acres	1100	3000	2700	1800	2200	400	2300	3000	1100	1500	1350	2000	1300	3000	1,639.7	24.2% of farm acres		
CRP Acres	0	0	750	400	100	1200	0	160	1000	2000	2825	1600	1300	0	779.8	11.5% of farm acres		
Acres Undercutter Used	1650	4000	760	1900	2400	0	1350	4200	1300	2000	0	0	200	600	1708.9	25.2% of farm acres		
Acres Undercutter Not Used	NA	NA	4	4	4	4	NA	5	5	4.5	4	5	4	NA	4.5	(27%)		
Undercutter Satisfaction (if used)	NA	NA	1	0	0	0	NA	0	1	1	1	1	1	NA	0.27	(43%)		
Used attachment**	NA	NA	1	0	0	0	NA	0	1	1	1	1	1	NA				
Attachment type***	1	1	1	0	0	0	1	0	0	1	0	0	0	0	0.43	(43%)		
2009 Fall Undercutter Weed Control**	0	40	60	0	0	0	0	0	180	0	10	70	40	0	40.5			
2009 Undercutter Acres Reseeded	0	120	0	0	0	0	0	250	975	700	500	100	240	0	96.5			
2009 Non-Undercutter acres Reseeded	1650	4000	1020	2300	2500	1200	1100	750	2300	3000	2825	1600	1200	1300	2225.7			
Spring Glyphosate Acres	0.48	0.42	0.54	0.77	0.69	0.42	0.43	0.69	0.48	0.52	0.34	0.69	0.48	0.48	0.54			
Spring Glyphosate Rate (lb./Acid/A)	105	88	110	59	79	100	105	91	212	51	102	118	100	64	95	April, 4		
Date of Primary Tillage*	Fallow Fertilizer Application Rate:																	
lb. Nitrogen per Acre	50	45	55	0	25	30	50	50	45	50	55	37	76	0	45.3			
lb. Sulfur per Acre	0	5	7	0	0	5	15	10	0	8	10	5	15	0	4.9			
lb. Phosphate per acre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.7			
Tillage Perpendicular to Wind****	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.83	(83%)		

2010 Spring Interveiw Summary

Oregon State Average	10			11			13					
	01	02	03	04	05	01	02	03	04	05	06	
County:												
Grower	3500	2863	11000	11500	3600	NA	NA	6000	3400	4400	11200	5000
Total Farm Acres	525	305	1450	100	0	NA	NA	2000	65	0	2000	725
CRP Acres	400	1500	200	2600	1800	NA	NA	800	618	650	0	2500
Acres Undercutter Used	1300	0	200	3600	0	NA	NA	1000	1190	3750	4788	0
Acres Undercutter Not Used	5	5	4	5	4.5	NA	NA	5	5	5	NA	5
Undercutter Satisfaction (if used)	0	1	0	1	0	AN	AN	1	1	0	NA	0
Used attachment**	0	1	0	1	0	NA	NA	1	1	0	NA	0
Attachment type***	0	1	0	1	0	NA	NA	0	1	1	1	0
2009 Fall Undercutter Weed Control**	0	1	1	0	1	NA	NA	0	1	1	1	0
2009 Undercutter Acres Reseeded	0	426	0	0	160	NA	NA	0	0	0	30	0
2009 Non-Undercutter acres Reseeded	800	0	0	0	1240	NA	NA	0	0	120	800	0
Spring Glyphosate Acres	1700	1500	3900	2600	1800	NA	NA	2000	898	650	4600	2500
Spring Glyphosate Rate (lb./Acid/A)	0.49	0.6	0.72	0.54	0.33	NA	NA	0.78	0.48	0.36	0.78	0.69
Date of Primary Tillage*	89	102	182	100	125	NA	NA	110	69	172	124	60

Fallow Fertilizer Application Rate:	01	02	03	04	05	01	02	03	04	05	01	02	03	04	05	06
lb. Nitrogen per Acre	50	30	30	38	40	NA	Nna	50	40	40	75	60	75	45	55	80
lb. Sulfur per Acre	0	0	0	0	0	NA	NA	0	0	0	10	20	10	5	10	10
lb. Phosphate per acre	0	0	0	0	0	NA	NA	0	0	0	0	20	0	0	0	0
Tillage Perpendicular to Wind****	1	1	0	0	1	NA	NA	1	1	0	1	1	0	0	0	0

County:	14	Ave.
Grower	01	5354.2
Total Farm Acres	2530	
CRP Acres	0	1014.9
Acres Undercutter Used	0	987.2
Acres Undercutter Not Used	1200	1265.2
Undercutter Satisfaction (if used)	NA	4.1
Used attachment**	NA	0.46
Attachment type***	NA	
2009 Fall Undercutter Weed Control**	0	0.53
2009 Undercutter Acres Reseeded	0	45.1
2009 Non-Undercutter acres Reseeded	0	197.3
Spring Glyphosate Acres	1200	1915.9
Spring Glyphosate Rate (lb./Acid/A)	1.08	0.67
Date of Primary Tillage*	0	109

April 19 * Dates are Julian Standard Calendar, Calendar included at ** 0=No, Yes=1.
 *** 0=None, 1=Treader, 2=Fine Harrow, 3=Heavy Spike Harrow, 4=Rotar ***** No=0 Yes=1
 County Codes:
 Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yalcoma - 09
 Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14
 Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14
 (47%)
 Spring2010

2010 Spring Interveiw Summary

Averages by County	01														Ave.
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	
County:															
Grower	8400	3000	3000	12000	4500	6132	9000	10000	4800	4400	5000	8000	6250	10400	6777.3
Total Farm Acres	200	200	200	3500	2000	1000	4900	100	650	0	200	2000	200	1290	1174.3
CRP Acres	120	0	940	750	320	0	2000	900	830	0	750	800	0	2300	693.6
Acres Undercutter Used	2100	1100	240	3800	500	2566	0	4000	1300	2300	1550	2000	4200	2400	2004.0
Acres Undercutter Not Used	5	NA	5	5	5	NA	4	5	5	N	5	5	NA	4	3.4
Undercutter Satisfaction (if used)	0	NA	1	0	0	NA	1	1	1	NA	1	1	NA	1	0.50
Used attachment**	0	NA	1	0	0	NA	2	1	4	NA	1	5	NA	2	0.50
Attachment type***	1	0	0	1	1	0	0	0	0	1	1	1	0	0	0.50
2009 Fall Undercutter Weed Control**	160	25	0	100	60	0	160	0	0	0	0	140	10	160	58.2
2009 Undercutter Acres Reseeded	1750	175	400	200	0	2400	500	992	2130	2000	580	0	1000	1250	668.4
2009 Non-Undercutter acres Reseeded	2900	0	1260	4500	820	2566	2000	4900	2130	2000	2300	2800	1700	4700	2469.7
Spring Glyphosate Acres	0.48	0	0.69	0.69	0.67	0.39	0.6	0.48	0.45	0.48	0.52	0.52	1.25	0.52	0.55
Spring Glyphosate Rate (lb./Acid/A)	91	100	140	81	105	89	89	100	102	84	103	105	0	100	92
Date of Primary Tillage*															April, 2
Fallow Fertilizer Application Rate:															
lb. Nitrogen per Acre	30	60	45	30	95	50	40	60	55	50	68	45	50	43	51.5
lb. Sulfur per Acre	0	10	5	0	18	0	0	10	0	0	5	0	5	10	4.50
lb. Phosphate per acre	0	0	0	0	13	0	5	0	0	0	0	0	12	0	2
Tillage Perpendicular to Wind****	1	0	1	0	0	1	1	1	1	1	1	1	1	1	0.79

17.3% of farm acres
10.2% of farm acres
29.5 of farm acres

(50%)
(50%)

April, 2

(79%)

Averages by County	02														Ave.	
	01	02	03	04	05	06	07	08	09	09	09	09	09	09		
County:																
Grower	6000	6000	4250	12000	6000	6000	7000	3390	5500	6237.8						9000.0
Total Farm Acres	2000	4000	1100	3000	2700	1800	2200	400	2300	2166.7						2050.0
CRP Acres	1500	850	0	0	750	400	100	1200	0	533.3						580.0
Acres Undercutter Used	500	2350	1650	4000	760	1900	2400	0	1350	1656.7						2750.0
Acres Undercutter Not Used	5	3	NA	NA	4	4	4	4	NA	4.0						5.0
Undercutter Satisfaction (if used)	1	0	NA	NA	1	0	0	0	NA	0.33						0.50
Used attachment**	1	0	NA	NA	1	0	0	0	NA							
Attachment type***	0	1	1	1	1	0	0	0	1	0.56						
2009 Fall Undercutter Weed Control**	0	0	0	40	60	0	0	0	0	11.1						0.0
2009 Undercutter Acres Reseeded	0	0	0	120	0	0	0	0	0	13.3						90.0
2009 Non-Undercutter acres Reseeded	2000	3450	1650	4000	1020	2300	2500	1200	1100	2135.6						612.5
Spring Glyphosate Acres	0.6	0.39	0.48	0.42	0.54	0.77	0.69	0.42	0.43	0.53						1525.0
Spring Glyphosate Rate (lb./Acid/A)	110	74	105	88	110	59	79	100	105	92						0.59
Date of Primary Tillage*															June, 1	
Fallow Fertilizer Application Rate:																
lb. Nitrogen per Acre	45	25	50	45	55	0	25	30	50	36.1						48
lb. Sulfur per Acre	0	4	0	5	7	0	0	5	15	4.0						5.0
lb. Phosphate per acre	0	0	0	0	0	0	0	0	0	0						0
Tillage Perpendicular to Wind****	1	1	1	1	1	1	1	1	1	1						0.50

22.7% of farm acres
6.4% of farm acres
30.6% of farm acres

50%
0%

June, 1

(50%)

2010 Spring Interveiw Summary

Averages by County Continued

	04				Ave.	%
	01	02	03	04		
County:						
Grower	12000	7030	5000	8010.0		
Total Farm Acres	1500	1350	2000	1617		20.2% of farm acres
CRP Acres	2000	2825	1600	2141.7		26.7% of farm acres
Acres Undercutter Used	2000	0	0	666.7		8.3% of farm acres
Acres Undercutter Not Used	4.5	4	5	4.5		
Undercutter Satisfaction (if used)	1	1	1	1.00		(100%)
Used attachment**	1	1	1	1.00		
Attachment type***	1	0	0	0.33		(33%)
2009 Fall Undercutter Weed Control**	0	10	70	27		
2009 Undercutter Acres Reseeded	700	500	100	433.3		
2009 Non-Undercutter acres Reseeded	3000	2825	1600	2475.0		
Spring Glyphosate Acres	0.52	0.34	0.69	0.52		
Spring Glyphosate Rate (lb./Acid/A)	51	102	118	90		
Date of Primary Tillage*					March, 30	

Fallow Fertilizer Application Rate:

lb. Nitrogen per Acre	50	55	37	47.3	
lb. Sulfur per Acre	8	10	5	7.7	
lb. Phosphate per acre	0	0	0	0	
Tillage Perpendicular to Wind****	1	1	1	1	100%

	08		Ave.	%
	01	02		
County:				
Grower	4000	4000	4000	
Total Farm Acres	1300	1300	1300	
CRP Acres	200	200	200	
Acres Undercutter Used	4	4	4	
Acres Undercutter Not Used	1	1	1.00	
Undercutter Satisfaction (if used)	5	0	0.00	
Used attachment**	40	40	40	
Attachment type***	240	240.0	240.0	
2009 Fall Undercutter Weed Control**	1200	1200.0	1200.0	
2009 Undercutter Acres Reseeded	0.48	0.48	0.48	
Spring Glyphosate Acres	100	100	100	
Spring Glyphosate Rate (lb./Acid/A)			April, 10	
Date of Primary Tillage*			0	

Fallow Fertilizer Application Rate:

lb. Nitrogen per Acre	76	76	76	
lb. Sulfur per Acre	15	15	15	
lb. Phosphate per acre	20	20	20	
Tillage Perpendicular to Wind****	1	1	1	100%

	09		Ave.	%
	01	02		
County:				
Grower	6500	6500	6500	
Total Farm Acres	3000	3000	3000	
CRP Acres	0	0	0	
Acres Undercutter Used	600	600	600	
Acres Undercutter Not Used	NA	NA	NA	
Undercutter Satisfaction (if used)	NA	NA	NA	
Used attachment**	NA	NA	NA	
Attachment type***	0	0	0.00	
2009 Fall Undercutter Weed Control**	0	0	0	
2009 Undercutter Acres Reseeded	1300	1300.0	1300.0	
2009 Non-Undercutter acres Reseeded	0.48	0.48	0.48	
Spring Glyphosate Acres	64	64	64	
Spring Glyphosate Rate (lb./Acid/A)			March, 5	
Date of Primary Tillage*			0	

Fallow Fertilizer Application Rate:

lb. Nitrogen per Acre	0	0	0	
lb. Sulfur per Acre	0	0	0	
lb. Phosphate per acre	0	0	0	
Tillage Perpendicular to Wind****	0	0	0	0%

	10					Ave.	%
	01	02	03	04	05		
County:							
Grower	3300	2863	11000	11500	3600	6452.6	
Total Farm Acres	525	305	1450	100	0	476.0	7.3% of farm acres
CRP Acres	400	1500	200	2600	1800	1300.0	20.1% of farm acres
Acres Undercutter Used	1300	0	200	3600	0	1020.0	15.8% of farm acres
Acres Undercutter Not Used	5	5	4	5	4.5	4.7	
Undercutter Satisfaction (if used)	0	1	0	1	0	0.40	(40%)
Used attachment**	0	1	0	1	0		
Attachment type***	0	1	1	1	0	0.60	(60%)
2009 Fall Undercutter Weed Control**	0	426	0	0	160	117	
2009 Undercutter Acres Reseeded	800	0	0	0	1240	408.0	
2009 Non-Undercutter acres Reseeded	1700	1500	3900	2600	1800	2300.0	
Spring Glyphosate Acres	0.49	0.6	0.72	0.54	0.33	0.54	
Spring Glyphosate Rate (lb./Acid/A)	89	102	182	100	125	120	
Date of Primary Tillage*						April, 29	

Fallow Fertilizer Application Rate:

lb. Nitrogen per Acre	50	30	30	38	40	37.6	
lb. Sulfur per Acre	0	0	0	0	0	0.00	
lb. Phosphate per acre	0	0	0	0	0	0	
Tillage Perpendicular to Wind****	1	1	0	0	1	0.60	(60%)

	11					Ave.	%
	01	02	03	04	05		
County:							
Grower	NA	NA	6000	3400	4400	4600.0	
Total Farm Acres	NA	NA	2000	65	0	688.3	14.9% of farm acres
CRP Acres	NA	NA	800	618	650	689.3	14.9% of farm acres
Acres Undercutter Used	NA	NA	1000	1190	3750	1980.0	43% of farm acres
Acres Undercutter Not Used	NA	NA	5	5	5	5.0	
Undercutter Satisfaction (if used)	NA	NA	1	1	0	0.67	(67%)
Used attachment**	NA	NA	1	1	0		
Attachment type***	NA	NA	0	1	1	0.67	(67%)
2009 Fall Undercutter Weed Control**	NA	NA	0	0	0	0	
2009 Undercutter Acres Reseeded	NA	NA	0	0	120	40.0	
2009 Non-Undercutter acres Reseeded	NA	NA	2000	898	650	1182.7	
Spring Glyphosate Acres	NA	NA	0.78	0.48	0.36	1.62	
Spring Glyphosate Rate (lb./Acid/A)	NA	NA	110	69	172	117	
Date of Primary Tillage*						April 27	

lb. Nitrogen per Acre	NA	NA	50	40	40	43.3	
lb. Sulfur per Acre	NA	NA	0	0	0	0.0	
lb. Phosphate per acre	NA	NA	0	0	0	0.0	
Tillage Perpendicular to Wind****	NA	NA	1	1	0	0.67	(67%)

2010 Spring Interview Summary

Averages by County Continued

County:	13						Ave.
	01	02	03	04	05	06	
Grower	11200	5000	4700	2800	3020	5000	5286.7
Total Farm Acres	2000	725	0	0	2500	200	904.2
CRP Acres	0	2500	800	160	280	2500	1040.0
Acres Undercutter Used	4788	0	700	1250	0	0	1123.0
Acres Undercutter Not Used	NA	5	4	5	4	4	4.6
Undercutter Satisfaction (if used)	NA	0	1	0	0	1	0.50
Used attachment**	NA	0	5	0	0	5	(50%)
Attachment type***	1	1	1	0	0	0	0.50
2009 Fall Undercutter Weed Control**	30	0	0	0	60	0	(33%)
2009 Undercutter Acres Reseeded	800	0	0	0	0	0	15
2009 Non-Undercutter acres Reseeded	4600	2500	1200	1410	280	2500	133.33
Spring Glyphosate Acres	0.78	0.69	1.03	0.69	0.69	0.72	2081.7
Spring Glyphosate Rate (lb.Acid/A)	124	60	162	100	140	95	0.77
Date of Primary Tillage*							114
Fallow Fertilizer Application Rate:							April, 23
lb. Nitrogen per Acre	75	60	75	45	55	80	63.0
lb. Sulfur per Acre	10	20	10	5	10	10	65.0
lb. Phosphate per acre	0	20	0	0	0	0	3
Tillage Perpendicular to Wind****	1	1	0	0	0	0	0.33

14	Ave.
01	2530
0	0
0	0
1200	1200
NA	NA
NA	NA
NA	NA
0	0
0	0
0	0
1200	1200
1.08	1.08
NA	NA

0% of farm acres
0% of farm acres
47.4% of farm acres

17.1% of farm acres
19.7% of farm acres
21.2% of farm acres

(0%)

(0%)

* Dates are Julian Standard Calendar, Calendar included at the end of this report

*** 0=None, 1=Treader, 2=Fine Harrow, 3=Heavy Spike Harrow, 4=Rotary Harrow, 5=Coil Packer

** 0=No, Yes=1

**** No=0 Yes=1

County Codes:

Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yakima - 09

Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14

Appendix F (Cont.)

Julian Day Calendar

Leap years:
(1988, 1992, 1996, 2000, 2004, 2008, 2012, ...)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	32	61	92	122	153	183	214	245	275	306	336
2	2	33	62	93	123	154	184	215	246	276	307	337
3	3	34	63	94	124	155	185	216	247	277	308	338
4	4	35	64	95	125	156	186	217	248	278	309	339
5	5	36	65	96	126	157	187	218	249	279	310	340
6	6	37	66	97	127	158	188	219	250	280	311	341
7	7	38	67	98	128	159	189	220	251	281	312	342
8	8	39	68	99	129	160	190	221	252	282	313	343
9	9	40	69	100	130	161	191	222	253	283	314	344
10	10	41	70	101	131	162	192	223	254	284	315	345
11	11	42	71	102	132	163	193	224	255	285	316	346
12	12	43	72	103	133	164	194	225	256	286	317	347
13	13	44	73	104	134	165	195	226	257	287	318	348
14	14	45	74	105	135	166	196	227	258	288	319	349
15	15	46	75	106	136	167	197	228	259	289	320	350
16	16	47	76	107	137	168	198	229	260	290	321	351
17	17	48	77	108	138	169	199	230	261	291	322	352
18	18	49	78	109	139	170	200	231	262	292	323	353
19	19	50	79	110	140	171	201	232	263	293	324	354
20	20	51	80	111	141	172	202	233	264	294	325	355
21	21	52	81	112	142	173	203	234	265	295	326	356
22	22	53	82	113	143	174	204	235	266	296	327	357
23	23	54	83	114	144	175	205	236	267	297	328	358
24	24	55	84	115	145	176	206	237	268	298	329	359
25	25	56	85	116	146	177	207	238	269	299	330	360
26	26	57	86	117	147	178	208	239	270	300	331	361
27	27	58	87	118	148	179	209	240	271	301	332	362
28	28	59	88	119	149	180	210	241	272	302	333	363
29	29	60	89	120	150	181	211	242	273	303	334	364
30	30		90	121	151	182	212	243	274	304	335	365
31	31		91		152		213	244		305		366

Regular years:
(2001, 2002, 2003, 2005, 2006, 2007, 2009, 2010, ...)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29		88	119	149	180	210	241	272	302	333	363
30	30		89	120	150	181	211	242	273	303	334	364
31	31		90		151		212	243		304		365

2010 Fall Interview Summary

County:	All		Washington		Oregon		01		02		03		04	
	Ave.		Ave.		Ave.		Ave.		Ave.		Ave.		Ave.	
Grower	204.4		240.3		160.0		1161.5		160.0		161.0		160.0	
2009 Project Acres Harvested	41.2		40.5		48.1		44.6		33.9		47.5		38.3	
2009 Project Acres Yield (bu/A)	2020.7		2361.4		1608.9		2542.6		2105.0		2869.0		2657.3	
2009 Non-project Acres Harvested	41.7		42.6		45.6		48.7		36.0		40.0		43.0	
2009 Non-project Acres Yield (bu./A)	793.1		808.9		867.2		750.6		686.3		580.0		1773.3	
Acres Undercutter Used	1.5		7841.2		1.3		1.3		2.1		2.0		2	
Number of Rodweedings - Undercutter Acres	1212.3		1485		829		1586		1556		2670		1000.0	
Acres Conventional Tillage	1.6		2.0		1.1		1.9		2.8		2.0		1.0	
Number of Rodweedings - Conventional Acres	9.2		9.3		10.4		5.3		8.3		8.5		10.3	
Estimated Crop-Year Precipitation (in.)	8.5		8.7		9.1		9.1		8.1		8.0		8.7	
Grower Satisfaction with Project (10 High Rating)														

County:	08		09		10		11		13		14	
	Ave.		Ave.		Ave.		Ave.		Ave.		Ave.	
Grower	160.0		160.0		160.0		160.0		160.0		160.0	
2009 Project Acres Harvested	65.0		12.0		37.0		36.0		59.5		73.0	
2009 Project Acres Yield (bu/A)	940.0		1650.0		2515.3		1166.0		1782.8		60.0	
2009 Non-project Acres Harvested	50.0		12.0		38.2		37.2		51.8		73.0	
2009 Non-project Acres Yield (bu./A)	1100.0		0.0		1500.0		413.6		1073.3		0.0	
Acres Undercutter Used	3		0		2		1		1		0	
Number of Rodweedings - Undercutter Acres	0.0		0.0		980.0		256.0		1041.7		0.0	
Acres Conventional Tillage	0.0		0.0		1.7		0.8		1.2		0.0	
Number of Rodweedings - Conventional Acres	10.5		7.0		10.7		9.5		10.2		15.0	
Estimated Crop-Year Precipitation (in.)	9.0		10.0		9.7		9.4		8.8		7.0	
Grower Satisfaction with Project (10 High Rating)												

County:	01														02				
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	01	02	03		
Grower	160	160	160	160	160	2566	160	160	160	160	160	160	160	160	160	160	160		
2009 Project Acres Harvested	20	60	55	22	50	50	35	63	53	43	61	35	39	38	50	21	21		
2009 Project Acres Yield (bu/A)	4340	1200	1100	4300	2000	500	1940	2500	1930	2107	2540	2640	4040	4460	1640	2195	2195		
2009 Non-project Acres Harvested	45	60	40	34.5	80	50	35	59	50	49	61	40	45	33	50	22	22		
2009 Non-project Acres Yield (bu./A)	120	0	940	1000	320	485	2000	440	719	0	825	800	0	2860	1500	707	707		
Acres Undercutter Used	2	0	1	1	0	2	0	2	2	0	3	2	0	3	2	3	3		
Number of Rodweedings - Undercutter Acres	2850	1300	320	3300	2000	2081	0	2000	1300	1980	1475	2000	0	1600	500	2180	2180		
Acres Conventional Tillage	2	2	2	3	0	3	0	2	2	2	3	2	0	3	2	3	3		
Number of Rodweedings - Conventional Acres	8	12	10.9	?	?	?	?	?	15	9	?	?	?	10	11	8	8		
Estimated Crop-Year Precipitation (in.)	9	10	8.5	10	10	5	10	9	10	10	9	10	10	7	10	5	5		
Grower Satisfaction with Project (10 High Rating)																			

County Codes: Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yakima - 09 Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14

2010 Fall Interview Summary

Total Undercutter Project Average Continued

County:	02				03				04				08				10			
	03	04	05	06	07	08	09	01	02	01	02	03	04	05	06	07	08	09	10	
Grower	160	160	160	160	160	160	160	162	160	160	160	160	160	160	160	160	160	160	160	
2009 Project Acres Harvested	38	42	24	28	35	32	35	60	35	47	41	27	65	12	50	20				
2009 Project Acres Yield (bu/A)	1500	4300	740	2200	2490	2340	1540	4338	1400	3832	2700	1440	940	1650	1400	1401				
2009 Non-project Acres Harvested	38	38	39	32	35	32	38	50	30	47	34	48	50	12	50	28				
2009 Non-project Acres Yield (bu/A)	0	200	770	400	600	2000	0	160	1000	1000	2720	1600	1100	0	400	1500				
Acres Undercutter Used	0	1	3	4	4	2	0	2	2	3	2	2	3	0	3	1				
Number of Rodweedings - Undercutter Acres	1600	4500	260	1960	1400	0	1600	4340	1000	3000	0	0	0	0	1300	0				
Acres Conventional Tillage	4	3	3	4	4	0	2	2	3	3	0	0	0	0	3	0				
Number of Rodweedings - Conventional Acres	9	7	9	8.6	8	6	8	9	8	11	11	9	10.5	7	11	9				
Estimated Crop-Year Precipitation (in.)	7.5	6	9	9	9	7	10	9	7	8	8	10	9	10	9	10				
Grower Satisfaction with Project (10 High Rating)																				

County:	10				11				13				14				Ave.	
	03	04	05	06	02	03	04	05	01	02	03	04	05	06	07	08		09
Grower	NA	160	NA	160	160	160	160	160	160	160	160	160	160	160	160	160	160	213.5
2009 Project Acres Harvested	NA	41	NA	30	19	44	52	35	46	50	74	45	54	88	73	43.0		
2009 Project Acres Yield (bu/A)	NA	4745	NA	300	1000	2000	1480	1050	3130	1580	2100	1290	57	2540	60	2110.6		
2009 Non-project Acres Harvested	NA	36.7	NA	36	19	44	52	35	51	50	65	45	25	75	73	43.6		
2009 Non-project Acres Yield (bu/A)	NA	2600	NA	0	0	800	618	650	0	2500	800	160	280	2700	0	828.3		
Acres Undercutter Used	NA	2	NA	0	0	1	3	2	0	2	1	3	2	0	0	2		
Number of Rodweedings - Undercutter Acres	NA	3600	NA	0	0	1000	280	0	4600	0	400	1250	0	0	0	1266.1		
Acres Conventional Tillage	NA	2	NA	0	0	1	3	0	2	0	2	3	0	0	0	1.7		
Number of Rodweedings - Conventional Acres	NA	12	NA	7.2	7.2	11	13	9	9	10	13	6	11	12	15	9.2		
Estimated Crop-Year Precipitation (in.)	NA	10	NA	9	10	9	9	10	10	10	8	7	8	10	7	9		
Grower Satisfaction with Project (10 High Rating)																		

Washington State Average

County:	01																02			
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	01	02				
Grower	160	160	160	160	160	2566	160	160	160	160	160	160	160	160	160	160				
2009 Project Acres Harvested	20	60	55	22	50	50	35	63	53	43	61	35	39	38	50	21				
2009 Project Acres Yield (bu/A)	4340	1200	1100	4300	2000	500	1940	2500	1930	2107	2540	2640	4040	4460	1640	2195				
2009 Non-project Acres Harvested	45	60	40	34.5	80	50	35	59	50	49	61	40	45	33	50	22				
2009 Non-project Acres Yield (bu/A)	120	0	940	1000	320	485	2000	440	719	0	825	800	0	2860	1500	707				
Acres Undercutter Used	2	0	1	1	0	2	0	2	2	0	3	2	0	3	2	3				
Number of Rodweedings - Undercutter Acres	2850	1300	320	3300	2000	2081	0	2000	1300	1980	1475	2000	0	1600	500	2180				
Acres Conventional Tillage	2	2	2	3	0	3	0	2	2	2	3	2	0	3	2	3				
Number of Rodweedings - Conventional Acres	8	12	10.9	?	?	?	?	?	15	9	?	?	?	?	10	11	8			
Estimated Crop-Year Precipitation (in.)	9	10	8.5	10	10	5	10	9	10	10	9	10	10	7	10	5				
Grower Satisfaction with Project (10 High Rating)																				

County Codes: Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yakima - 09

Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14

2010 Fall Interview Summary

Washington State Average Continued

County:	02										03			04			08		09		Ave.
	03	04	05	06	07	08	09	01	02	01	02	03	01	02	03	01	02	01	02		
Grower	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	240.3	
2009 Project Acres Harvested	38	42	24	28	35	32	35	60	35	47	41	27	65	12	40.5					40.5	
2009 Project Acres Yield (bu/A)	1500	4300	740	2200	2490	2340	1540	4338	1400	3832	2700	1440	940	1650	2361.4					2361.4	
2009 Non-project Acres Harvested	38	38	39	32	35	32	38	50	30	47	34	48	50	12	42.6					42.6	
2009 Non-project Acres Yield (bu/A)	0	200	770	400	600	2000	0	160	1000	1000	2720	1600	1100	0	808.9					808.9	
Acres Undercutter Used	0	1	3	4	4	2	0	2	2	3	2	2	3	0	784.1					784.1	
Number of Rodweedings - Undercutter Acres	1600	4500	260	1960	1400	0	1600	4340	1000	3000	0	0	0	0	1484.9					1484.9	
Acres Conventional Tillage	4	3	3	4	4	0	2	2	3	3	0	0	0	0	2.0					2.0	
Number of Rodweedings - Conventional Acres	9	7	9	8.6	8	6	8	9	8	11	11	9	10.5	7	9.3					9.3	
Estimated Crop-Year Precipitation (in.)	7.5	6	9	9	9	7	10	9	7	8	8	10	9	10	9					9	
Grower Satisfaction with Project (10 High Rating)																					

Oregon State Average

County:	10										11			13			06			
	01	02	03	04	05	01	02	03	04	05	01	02	03	04	05	06				
Grower	160	160	160	160	NA	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
2009 Project Acres Harvested	50	20	NA	41	NA	30	19	44	52	35	46	50	74	45	54	88				88
2009 Project Acres Yield (bu/A)	1400	1401	NA	4745	NA	300	1000	2000	1480	1050	3130	1580	2100	1290	57	2540				2540
2009 Non-project Acres Harvested	50	28	NA	36.7	NA	36	19	44	52	35	51	50	65	45	25	75				75
2009 Non-project Acres Yield (bu/A)	400	1500	NA	2600	NA	0	0	800	618	650	0	2500	800	160	280	2700				2700
Acres Undercutter Used	3	1	NA	2	NA	0	0	1	3	2	0	2	1	3	2	0				0
Number of Rodweedings - Undercutter Acres	1300	0	NA	3600	NA	0	0	1000	280	0	4600	0	400	1250	0	0				0
Acres Conventional Tillage	3	0	NA	2	NA	0	0	1	3	0	2	0	2	3	0	0				0
Number of Rodweedings - Conventional Acres	11	9	NA	12	NA	7.2	7.2	11	13	9	9	10	13	6	11	12				12
Estimated Crop-Year Precipitation (in.)	9	10	NA	10	NA	9	10	9	9	10	10	10	8	7	8	10				10
Grower Satisfaction with Project (10 High Rating)																				

County:	14	Ave.
Grower	01	160.0
2009 Project Acres Harvested	160	160.0
2009 Project Acres Yield (bu/A)	73	48.1
2009 Non-project Acres Harvested	60	1608.9
2009 Non-project Acres Yield (bu/A)	73	45.6
Acres Undercutter Used	0	867.2
Number of Rodweedings - Undercutter Acres	0	1.3
Acres Conventional Tillage	0	828.7
Number of Rodweedings - Conventional Acres	0	1.1
Estimated Crop-Year Precipitation (in.)***	15	10.4
Grower Satisfaction with Project (10 High Rating)	7	9.1

County Codes: Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yakima - 09 Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14

2010 Fall Interview Summary

Averages by County

County:	01														Ave.
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Grower	160	160	160	160	160	2566	160	160	160	160	160	160	160	160	1161.5
2009 Project Acres Harvested	20	60	55	22	50	50	35	63	53	43	61	35	39	38	44.6
2009 Project Acres Yield (bu/A)	4340	1200	1100	4300	2000	500	1940	2500	1930	2107	2540	2640	4040	4460	2542.6
2009 Non-project Acres Harvested	45	60	40	34.5	80	50	35	59	50	49	61	40	45	33	48.7
2009 Non-project Acres Yield (bu./A)	120	0	940	1000	320	485	2000	440	719	0	825	800	0	2860	750.6
Acres Undercutter Used	2	0	1	1	0	2	0	2	2	0	3	2	0	3	1.3
Number of Rodweedings - Undercutter Acres	2850	1300	320	3300	2000	2081	0	2000	1300	1980	1475	2000	0	1600	1586.1
Acres Conventional Tillage	2	2	2	3	0	3	0	2	2	2	3	2	0	3	1.9
Number of Rodweedings - Conventional Acres	8	12	10.9	?	?	?	9	?	15	9	?	?	?	10	5.3
Estimated Crop-Year Precipitation (in.)	9	10	8.5	10	10	5	10	9	10	10	9	10	10	7	9
Grower Satisfaction with Project (10 High Rating)															

County:	02														Ave.
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Grower	160	160	160	160	160	160	160	160	160	160	160	160	160	160	161.0
2009 Project Acres Harvested	50	21	38	42	24	28	35	32	35	33.9					47.5
2009 Project Acres Yield (bu/A)	1640	2195	1500	4300	740	2200	2490	2340	1540	2105.0					2869.0
2009 Non-project Acres Harvested	50	22	38	38	39	32	35	32	38	36.0					40.0
2009 Non-project Acres Yield (bu./A)	1500	707	0	200	770	400	600	2000	0	686.3					580.0
Acres Undercutter Used	2	3	0	1	3	4	4	2	0	2					2
Number of Rodweedings - Undercutter Acres	500	2180	1600	4500	260	1960	1400	0	1600	1555.6					2670.0
Acres Conventional Tillage	2	3	4	3	3	4	4	0	2	2.8					2.0
Number of Rodweedings - Conventional Acres	11	8	9	7	9	8.6	8	6	8	8.3					8.5
Estimated Crop-Year Precipitation (in.)	10	5	7.5	6	9	9	9	7	10	8.1					8
Grower Satisfaction with Project (10 High Rating)															

County:	03														Ave.
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Grower	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160.0
2009 Project Acres Harvested	47	41	27	38.3											65.0
2009 Project Acres Yield (bu/A)	3832	2700	1440	2657.3											940.0
2009 Non-project Acres Harvested	47	34	48	43.0											1650.0
2009 Non-project Acres Yield (bu./A)	1000	2720	1600	1773.3											50.0
Acres Undercutter Used	3	2	2	2.3											1100
Number of Rodweedings - Undercutter Acres	3000	0	0	1000.0											1100
Acres Conventional Tillage	3	0	0	1											3
Number of Rodweedings - Conventional Acres	11	11	9	10.3											0
Estimated Crop-Year Precipitation (in.)	8	8	10	8.7											0
Grower Satisfaction with Project (10 High Rating)															0

County Codes: Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yakima - 09 Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14

2010 Fall Interview Summary

Averages by County Continued

	10					11					Ave.
	01	02	03	04	05	01	02	03	04	05	
County:											
Grower	160	160	NA	160	NA	160	160	160	160	160	160.0
2009 Project Acres Harvested	50	20	NA	41	NA	30	19	44	52	35	36.0
2009 Project Acres Yield (bu/A)	1400	1401	NA	4745	NA	300	1000	2000	1480	1050	1166.0
2009 Non-project Acres Harvested	50	28	NA	36.7	NA	36	19	44	52	35	37.2
2009 Non-project Acres Yield (bu./A)	400	1500	NA	2600	NA	0	0	800	618	650	413.6
Acres Undercutter Used	3	1	NA	2	NA	0	0	1	3	2	1.2
Number of Rodweedings - Undercutter Acres	1300	0	NA	3600	NA	0	0	1000	280	0	256.0
Acres Conventional Tillage	3	0	NA	2	NA	0	0	1	3	0	0.8
Number of Rodweedings - Conventional Acres	11	9	NA	12	NA	7.2	7.2	11	13	9	9.5
Estimated Crop-Year Precipitation (in.)	9	10	NA	10	NA	9	10	9	9	10	9.4
Grower Satisfaction with Project (10 High Rating)											

	13						Ave.
	01	02	03	04	05	06	
County:							
Grower	160	160	160	160	160	160	160.0
2009 Project Acres Harvested	46	50	74	45	54	88	59.5
2009 Project Acres Yield (bu/A)	3130	1580	2100	1290	57	2540	1782.8
2009 Non-project Acres Harvested	51	50	65	45	25	75	51.8
2009 Non-project Acres Yield (bu./A)	0	2500	800	160	280	2700	1073.3
Acres Undercutter Used	0	2	1	3	2	0	1.3
Number of Rodweedings - Undercutter Acres	4600	0	400	1250	0	0	1041.7
Acres Conventional Tillage	2	0	2	3	0	0	1.2
Number of Rodweedings - Conventional Acres	9	10	13	6	11	12	10.2
Estimated Crop-Year Precipitation (in.)	10	10	8	7	8	10	8.8
Grower Satisfaction with Project (10 High Rating)							

14		Ave.
01	160	160.0
73	73	73.0
60	60	60.0
73	73	73.0
0	0	0.0
0	0	0.0
0	0	0.0
0	0	0.0
15	15	15.0
7	7	7.0

County Codes: Washington: Adams - 01, Benton - 02, Douglas - 03, Franklin - 04, Walla Walla - 08, Yakima - 09

Oregon: Gilliam - 10, Morrow - 11, Umatilla - 13, Wasco - 14

Appendix G (Cont.)

Julian Day Calendar

Leap years:
(1988, 1992, 1996, 2000, 2004, 2008, 2012, ...)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	32	61	92	122	153	183	214	245	275	306	336
2	2	33	62	93	123	154	184	215	246	276	307	337
3	3	34	63	94	124	155	185	216	247	277	308	338
4	4	35	64	95	125	156	186	217	248	278	309	339
5	5	36	65	96	126	157	187	218	249	279	310	340
6	6	37	66	97	127	158	188	219	250	280	311	341
7	7	38	67	98	128	159	189	220	251	281	312	342
8	8	39	68	99	129	160	190	221	252	282	313	343
9	9	40	69	100	130	161	191	222	253	283	314	344
10	10	41	70	101	131	162	192	223	254	284	315	345
11	11	42	71	102	132	163	193	224	255	285	316	346
12	12	43	72	103	133	164	194	225	256	286	317	347
13	13	44	73	104	134	165	195	226	257	287	318	348
14	14	45	74	105	135	166	196	227	258	288	319	349
15	15	46	75	106	136	167	197	228	259	289	320	350
16	16	47	76	107	137	168	198	229	260	290	321	351
17	17	48	77	108	138	169	199	230	261	291	322	352
18	18	49	78	109	139	170	200	231	262	292	323	353
19	19	50	79	110	140	171	201	232	263	293	324	354
20	20	51	80	111	141	172	202	233	264	294	325	355
21	21	52	81	112	142	173	203	234	265	295	326	356
22	22	53	82	113	143	174	204	235	266	296	327	357
23	23	54	83	114	144	175	205	236	267	297	328	358
24	24	55	84	115	145	176	206	237	268	298	329	359
25	25	56	85	116	146	177	207	238	269	299	330	360
26	26	57	86	117	147	178	208	239	270	300	331	361
27	27	58	87	118	148	179	209	240	271	301	332	362
28	28	59	88	119	149	180	210	241	272	302	333	363
29	29	60	89	120	150	181	211	242	273	303	334	364
30	30		90	121	151	182	212	243	274	304	335	365
31	31		91		152	183	213	244		305		366

Regular years:
(2001, 2002, 2003, 2005, 2006, 2007, 2009, 2010, ...)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29		88	119	149	180	210	241	272	302	333	363
30	30		89	120	150	181	211	242	273	303	334	364
31	31		90		151	182	212	243		304		365

Appendix H



Washington Association of Wheat Growers
Administrator of the PNW Under cutter Project
109 East First Ave., Ritzville, WA 99169
1-800-598-6890 www.wawg.org

Application for Participation

1. Applicant Information

Name: _____
Address: _____
City, State, Zip: _____
County: _____ Phone No.: _____
Are you NRCS EQIP eligible? Yes ___ No ___

EQIP Eligibility Documentation:

I authorize the transfer of information between the NRCS and my local Conservation District. Any information obtained by the Conservation District pertinent to the PNW Undercutter Project may be transferred to WAWG. Any information obtained by WAWG will be held confidential and will be used only to verify project eligibility.

Signature of Applicant _____

Date _____

2. Participating Property Information

Minimum of 160 acres per year

Please provide the following information for the property you will enroll in the project.

Soil Type: _____
Rocky Soil: Yes ___ No ___
Average Annual Precipitation: _____

3. Equipment Information

1. What drill will you use? _____
2. The main objective of the project is for you to maintain more surface residue during fallow. Do you anticipate that your drill will function adequately under the conditions of increased surface residue?
Yes ___ No ___
If your answer is no, please attach to this application a description of the residue management practices you will employ so that your drill will function adequately.
3. Some soil types will require an equipment attachment to the undercutter (not funded by grant matching funds) to break up clods and fill air voids during primary tillage. *If you anticipate you will need such an equipment attachment to the undercutter, please attach to this application a description of the type of equipment that will best fulfill your needs.*

4. Undercutter Criteria

1. The undercutter blade width may range from 32 to 48 inches.
2. The undercutter blade overlap must be at least two inches.
3. The static angle of the undercutter blade will not exceed 35 degrees.
4. The undercutter blade depth will not exceed 4.5 inches.
5. The undercutter will be fitted by the dealer for liquid fertilizer injection with a maximum allowable spacing of 22 inches.
6. The maximum width of the undercutter machine for which WAWG will cost share 50% is 34 feet* (see Application and Agreement item no. 2).
7. The undercutter must be new and factory ready, including a coulter mounted in front of each shank.
8. Retrofits are not acceptable, with the exception of fertilizer application capability installed by the dealer.

5. Application and Agreement

1. I request participation in the PNW Undercutter Project and apply for the 50% share for the purchase of an undercutter that meets the criteria as defined in Part 4.
2. *I understand I may purchase an undercutter exceeding the 34-foot length, as noted in part 4, after consultation with the Project Manager, and be eligible to participate in the project. I will be responsible for 100% of the cost difference beyond the 34-foot undercutter width.
3. I understand WAWG will make its 50% cost-share payment for the qualifying undercutter directly to the dealer.

Appendix H (Cont.)

4. I agree to enter into a three-year contract and to complete that contract I will be required to provide my Social Security Number.
5. I agree to participate in the project on a minimum of 160 acres per year.
6. I agree to submit a \$1500 nonrefundable, good-faith deposit with this application. The deposit will be applied to my portion of the cost-share purchase price of the undercutter. The deposit will be refunded to me only if I am not accepted to participate in the undercutter project.
7. I agree to apply, at my cost, glyphosate herbicide at a minimum rate of 16 oz. per acre to the wheat stubble in the late winter to control grassy weeds.
8. I agree to conduct primary tillage with the undercutter at an approximate depth of 5 inches and perpendicular to the direction of the prevailing winds whenever possible.
9. I agree to inject nitrogen fertilizer, at my cost, with the undercutter during primary tillage for the subsequent winter wheat crop as recommended by soiltest.
10. I agree to rodweed only as needed to control weeds during the late spring and summer.
11. I agree to plant winter wheat in late-August through September if soil moisture is adequate, otherwise after the onset of fall rains. I will plant winter wheat perpendicular to the prevailing wind direction whenever possible.
12. I agree to permit for the duration of the contract, on reasonable notice and request from WAWG, the inspection and monitoring of fields enrolled in the project.
13. I agree to use the undercutter immediately after harvest only for Russian thistle or Kochia control if the weeds are present in large numbers.
14. I agree to chisel or subsoil the recently harvested wheat stubble in late fall only if the grain yield exceeded 35 bushels per acre and after consultation with the Project Manager. The implement used will have straight-point shanks spaced at least two feet apart.
15. I agree to request of any person(s) to whom the contracted acres are transferred by sale, lease or other means to sign a statement to maintain and continue the undercutter program for the remaining length of the contract life as a condition of ownership or control. I will notify WAWG in writing of any change in ownership or control of the subject property within thirty days of such a change. Written notification to WAWG will include: 1) The name of the new landowner or operator, 2) whether or not the new landowner or operator agrees to continue the undercutter project, and, 3) if they agree to continue the contract, a copy of a new landowner or operator-signed statement to continue the undercutter project for the remaining contract life.
16. I agree to refund to WAWG the 50% cost-share funds paid to the dealer, in addition to any other remedies available at law or in equity, if, before the expiration of the contract, I terminate the contract because of either of the following: 1) I fail to fulfill the conditions and requirements of the contract. 2) I sell the undercutter to anyone other than the new landowner or operator, who has signed an agreement to continue the contract for the duration of the project, and I will only recover the equity that I have invested in the undercutter.

Signature of Applicant

Date

For Office Use:	
Date Received:	By: US Mail Web Fax Other
Date Reviewed:	Accepted Not accepted
Comments:	

This material is based on work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number NRCS 68-3A75-6-108. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

Appendix I

Northwest Columbia Plateau PM₁₀ Project 2010 Annual Report

Objective: Evaluating the Profitability and Social Benefits of Alternative Farming Systems for Air Quality Control

Title: Economics of wind erosion control

Personnel: Douglas Young (P.I.), School of Economic Sciences, WSU, Emeritus
Cooperators are William Schillinger, Dept. of Crop and Soil Sciences, WSU; Stephen Machado, Steven Petrie, and Larry Pritchett, OSU; Harry Schafer, Washington Association of Wheat Growers; Brenton Sharratt, Frank Young, Ann Kennedy, Tim Paulitz, USDA-ARS, Pullman; Dennis Roe, WSU and USDA-NRCS retired

Abstract of Research Findings (300 words or less)

Forty-seven growers in 10 Washington and Oregon counties agreed to purchase undercutter tillage implements on a 50% cost share basis. Growers were personally interviewed in 2008, 2009, and 2010. Although the lack of eight fall 2010 interviews precludes final economic results, data to date indicate a modest profit advantage for the undercutter system. Statistically equivalent yields for the undercutter and conventional fallow/winter wheat systems generated equal gross economic returns. Nearly all individual farmers used the same input rates and other cultural practices for both fallow systems, except for primary tillage and fertilization. This pattern generated similar costs. However, injection of fertilizer with the undercutter provided a modest cost saving. This computed profitability advantage for the undercutter system coincides with the farmers' subjective estimate of an average 2.8% long run profitability advantage. With a profit advantage, the undercutter fallow system represents a win-win outcome for farmers and the environment. On field sites with undercutter versus disk primary tillage, Sharatt and Feng (2009) measured reductions of 15% to 65% in soil loss and 30% to 70% in PM-10 emissions. The win-win outcome for the environment and farm profitability supports the wisdom of this pilot machinery cost sharing program.

Conventional-fallow and chem-fallow preceding winter wheat dominated preliminary profitability rankings among seven farming systems evaluated over six years at Moro, Oregon. Continuous wheat systems suffered economically and agronomically due to root lesion nematodes and weed competition. Receipt of data on input use and operations will be needed to confirm these preliminary profit rankings.

Interviewees in a related STEEP project reported that the infeasibility of diverse annual rotations in dry regions fosters continuation of the conventional fallow-winter wheat. Many saw new fallow tillage machinery, and improved moisture conservation with direct seeding, as the best hope for wind erosion control in dry regions.

Objectives

1. To complete an economic comparison of undercutter and conventional fallow systems among 47 farmers participating in the Washington Association of Wheat Growers/Natural Resources Conservation Service (WAWG/NRCS) undercutter project.
2. To complete an economic comparison of seven farming systems in a six-year Moro, Oregon experiment conducted by Oregon State University scientists.

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3. To report results on wind erosion control systems, including undercutter use, from a related STEEP project.
4. To disseminate research results to growers and others through talks and published materials.

Methods and Materials

Analysis to date has determined that most machine operations and input applications for the undercutter and conventional fallow systems by individual farmers in the WAWG/NRCS undercutter project are the same. Consequently, partial budgeting provides an efficient method for comparing profitability of the two systems. This procedure measures only *changes* in gross revenue and *changes* in total costs for the undercutter system relative to the conventional system. For example, if the undercutter system decreases gross revenue by \$5/acre, but decreases total costs by \$15/acre, profit for the undercutter system gains \$10/acre over the conventional system. If there is no statistical difference at the .05 level among participating growers in yields between the two systems, yields and gross revenues will be considered equal. All cost and revenue figures are presented on a rotational acre basis. For example, a rotational acre of wheat/fallow will contain 0.5 acre of winter wheat and 0.5 acre of fallow. Crop prices are averages over the experiment era, while input prices are near term projections. Government payments are excluded in the profitability results because they do not differ by system and require grower-specific assumptions.

Data from the WAWG/NRCS undercutter project are based on spring and fall interviews of participating farmers during 2008, 2009, and 2010 by the project manager, H. Schafer. D. Young developed the economic component of the survey questionnaire. Young also accompanied Schafer on some farmer interviews. All available data for 2008, 2009, and 2010 have been entered in spreadsheets. We offer preliminary profitability rankings based on these data in this report.

As possible, returns over variable costs will be used to compare the seven cropping systems in the Moro, Oregon experiment. Cooperators have provided complete yield data for the experiment at this time and gross returns have been computed. Input levels and sequence of operations for the systems are not yet available from cooperators. These data will be required to compute costs and final profitability rankings; however, preliminary profitability ranking estimates based on partial data are offered in this report.

Results and Discussion

WAWG/NRCS Undercutter Project. The WAWG/NRCS Undercutter Project targets the winter-wheat/summer fallow region of Washington and Oregon in counties with less than 12 in/yr average precipitation. The undercutter method of summer fallow employs a wide-blade V-sweep for primary tillage plus fertilizer injection, followed by as few as one non-inversion rodweeding operations. The undercutter method increases surface residue and roughness which better protects against wind erosion compared to traditional tillage.

Forty-seven growers located in 10 counties in Washington and Oregon purchased undercutter tillage implements on a 50% cost share basis. Individual cost-share payments averaged \$15,320, including \$980 for the fertilizer application equipment. Total payments to growers equaled \$720,042.

Appendix I (Cont.)

Growers were interviewed in 2008, 2009, and 2010 with selected results reported below. Table 1 displays the average winter wheat/summer fallow (WW/SF) acreage allocation reported by participating farmers over 2008-2010. Changes in farm size over time are a consequence of changes in leased and owned land holdings. It is encouraging that farmers increased use of the undercutter on other land above their contractual level by 266 acres or 40% over the three years. However, as farm size increased by 21% from 2009 to 2010, conventional fallow acres also grew by 20%.

Table 1. Average WW/SF acreage allocation on participating farms, 2008-2010

Acres	2008	2009	2010
Total farm	5,827	5,154	6,242
Undercutter: contract	195	203	160
Undercutter: other land	670	768	936
CRP	1,000	1,010	1,330
Conventional fallow/WW	3,962	3,173	3,816
SUM (= Total farm)	5,827	5,154	6,242

The third year of 2010 received 108% of normal precipitation compared to 70% in the first two years which boosted yields by 41% (Table 2). Tables 2 and 3 show no statistically significant differences in yields and number of rodweedings with either undercutter fallow or conventional fallow among sample farmers in 2008, 2009, and 2010. Sample sizes vary over time because differing numbers of farmers had sufficient experience with the undercutter to respond to some questions in the earlier years. Also, some 2010 results were not available at the time of this report. Variation in yields, shown by the high coefficients of variation, hampered detecting significant differences in yields. High yield variation is due in part to the large geographic and precipitation dispersion among the participating farmers.

Dry conditions restricted weed growth and the need for rodweedings to less than two per year regardless of fallow system in 2008 and 2009. Above normal precipitation in 2010 prompted 2.0 and 2.5 rodweedings under the undercutter and conventional systems, respectively (Table 3).

Survey results showed farmers' satisfaction with the undercutter has improved over time with an average of 4.7 on a scale of 1 to 5 in 2010, from 4.1 in 2008, and 4.5 in 2008. In 2009, 52% of sampled farmers subjectively perceived their long run profit to increase with the undercutter versus the conventional system, up from 36% of sampled farmers in 2008. But in 2010 the ratio of farmers perceiving profit increases fell back to 35%. In all years, a substantial percentage of farmers expected equal profitability with the two systems. Few farmers expected the undercutter to decrease long run profit over time: 10% in 2008, 7% in 2009, and 6% in 2010. Averaged over three years, farmers expected long run profitability to increase by 2.8% with the undercutter system.

Appendix I (Cont.)

Table 2. Reported Winter Wheat Yields (bu/ac) by System and Year

System	Averages			Coefficients of Variation (%)		
	2008	2009	2010	2008	2009	2010
Undercutter	34	30	44	35	59	32
Conventional	31	30	44	27	45	36

Notes: 2008 sample sizes = 17 for undercutter (UC) and 41 for conventional (CON); 2009 sample sizes = 47 for each system; 2010 sample sizes = 37 for UC and 39 for CON. There were no statistically significant yield differences over systems within years.

Table 3. Average Number of Rodweedings by System and Year

System	2008	2009	2010
Undercutter	1.3	1.6	2.0
Conventional	1.3	1.8	2.5

Notes: There were no statistically significant differences over systems within years.

Participating growers were contractually required to apply a minimum of 16 oz/ac of glyphosate in late winter to control grass weeds. They averaged 16.8 oz/ac. Growers were required to inject nitrogen (N) fertilizer with the undercutter. A handful of growers applied fertilizer in a separate operation due to tractor horsepower limitations. N applications by individual farmers were nearly always identical for the two fallow systems averaging 46 lbs/ac in 2009 and 49 lbs/ac in 2010. About half the growers applied sulphur at an average rate of 9 lbs/ac. Very few applied phosphate. Winter wheat seeding rates for individual farmers were nearly always identical between the two systems. Seeding rates averaged 54 to 60 lbs/ac depending on the year, and were statistically equal over systems.

All data for 2008, 2009, and available data for 2010 have been entered on spreadsheets and analysis has been initiated. Although the lack of eight fall 2010 interviews precludes final economic results, data to date indicate a slight profit advantage for the undercutter system. Statistically equivalent yields for the two systems implied equal gross returns. In summary, nearly all farmers used the same input rates and other cultural practices for both systems except for primary tillage and fertilization. Statistically equivalent glyphosate, fertilizer, and seed costs implied equal costs for these inputs. Furthermore, statistically equivalent rodweeding operations yielded no cost savings in post-primary tillage between systems. However, injection of fertilizer with the undercutter by most farmers represented a cost saving for this system on average. This saving was moderated slightly because some farmers also injected fertilizer with non-undercutter primary tillage. The exact numerical cost saving with the undercutter will be computed when all data are in hand. A small computed profitability advantage for the undercutter system is consistent with the farmers' subjective estimate of an average 2.8% long run profitability advantage.

With a profit advantage, the undercutter fallow system represents a win-win for farmers and the environment. Sharatt and Feng (2009) measured 15% to 65% reductions in soil loss and 30% to 70% less PM-10 emissions on field sites with undercutter versus disk primary tillage. The preliminary win-win outcome would seem to confirm the policy wisdom of this pilot program for cost sharing for the undercutter. Indeed, some equipment dealers have reported

Appendix I (Cont.)

selling more undercutters since 2007 outside the cost sharing program than they sold under the program (Harry Schafer, personal communication, November 2010).

On the other hand, farmers reported a “learning curve” with the undercutter and variable performance on different soils. Participants complained most frequently about maintaining depth control in dry ground, costly blade wear, difficulty operating in heavy residue, kickbacks not setting properly, and problems in filling air voids in dry ground.

Funding has been received by the P.I. to resurvey participating farmers and to survey a random sample of other farmers in the 10 sample counties in 2013 in order to monitor the continuing use of, and satisfaction with, the undercutter. The P.I.’s recent experience with an ongoing \$184,000 STEEP Project has confirmed that conducting a statistically valid random sample survey of all USDA- Farm Services Agency listed farmers in just six PNW counties is a very expensive and complex task. However, a survey of Extension, NRCS, and Conservation District personnel on the extent of undercutter use among the general farm population in the 10 participating counties could provide a relatively accurate and affordable alternative.

Preliminary economic comparison of Moro, Oregon Cropping Systems. In cooperation with Stephen Machado and Steven Petrie, Oregon State University crop science researchers, the P.I. is initiating an economic evaluation of seven cropping systems evaluated in a 11 in/yr ppt. region at Moro, Oregon. The experiment was conducted during 2004/2005 through 2009/2010. The seven systems are:

1. Continuous Winter Wheat (Contin. WW)
2. Continuous Spring Wheat (Contin. SW)
3. Continuous Spring Barley (Contin. SB)
4. Conven. Fallow-WW (Conven. F-WW)
5. Chem-Fallow-WW (ChemF-WW)
6. Winter Wheat-Winter Peas (WW-WP)
7. Chem-Fallow-WW-SB (ChemF-WW-SB)

All systems except Conven. F-WW are direct seeded.

Gross revenues per rotational acre are presented in Table 4. Cooperator, S. Machado, provided

Table 4. Results by cropping system, Moro, Oregon experiment, 2004/2005-2009/2010

System	Av. Yield (bu/ac)	Av. Price (\$/bu)	Av. GR (\$/rotat. ac)	GR rank	Est. Profit Rank
1. Contin. WW	20.3	5.22	105.97	7	7
2. Contin. SW	25.4	5.22	132.59	4	4
3. Contin. SB	35.4	3.16	111.86	6	6
4. Conven. F-WW	53.7	5.22	140.16	1	1 or 2
5. ChemF-WW	51.3	5.22	133.89	2	1 or 2
6. WW- WP	33.0 10.3	5.22 8.60	130.42	5	5
7. ChemF-WW- SB	57 32	5.22 3.16	132.75	3	3

Appendix I (Cont.)

the six-year average yields for soft white winter wheat and other crops. Average local crop prices for the experimental era were collected by the P.I. Average WP yields were reduced by crop failures in 2008 and 2009. Cooperators attributed the high WW yield in the 3-year ChemF-WW-SB rotation to lower root lesion nematode and less weed competition. Both continuous wheat rotations 1 and 2 suffered severely from root lesion nematodes.

Cooperators had not provided input levels and sequence of operations for the systems at the time of reporting. These data, which are necessary to compute costs, will determine final profitability rankings. However, based on some fragmentary cost data and familiarity with the economics of similar systems in the PNW, the author is able to offer some profit ranking estimates at this time. With the lowest gross revenue, Contin. WW will assuredly remain in last place because it incurs substantial fertilizer, seed, herbicide, and machine operation costs every year. Profitability ranks for Contin. SB and Contin. SW will also match their low gross revenue ranks because these systems also incur high annual costs. W-WP and ChemF-WW-SB generated reasonable revenue, but incur intermediate levels of annual cost. Furthermore, there is a very thin market for winter pea seed to use for cover crop or feed crop plantings. ChemF-WW-SB and WW-WP are expected to occupy profit ranks 3 or 4. Conven. F-WW and ChemF-WW are expected to compete for top profitability. Both Conven. F-WW and ChemF-WW are low cost systems on an annual basis and generated relatively high revenues. Also, wheat prices are expected to hold up better than barley prices. Growers have chosen the Conven. F-WW system to maximize profit with acceptable risk for 120 years in this region. Again, cost data will determine the final rankings for Systems 4 and 5, and 6 and 7.

Wind erosion control results on a related STEEP Project. The P.I and cooperators conducted lengthy personal interviews with 20 PNW farmers and other stakeholders in Phase I of this project. Interviewees reported that the infeasibility of diverse annual rotations in dry regions encourages continuation of the conventional fallow-winter wheat system. Researchers' past failures with continuous rotations has cemented this viewpoint. Some growers saw improved conservation tillage machinery and moisture conservation as potential boosts for direct seeding in dry areas. The P.I and cooperators are currently conducting a mail survey of over 600 farmers in six counties in this project. The survey elicits undercutter use, among other practices, in WW-SF areas. Preliminary results will be available by mid-summer 2011.

References

Sharratt, B.S., and G. Feng. 2009. Windblown dust influenced by conventional and undercutter tillage within the Columbia Plateau, USA. *Earth Surf. Processes Landforms* 34:1223-1332.

Appendix I (Cont.)

Publications and Presentations (2010 only)

Published Abstracts

Schillinger, W.F., R. Jirava, D.L. Young, T.A. Smith, S.E. Schofstoll, A.C. Kennedy, and T.C. Paulitz. 2010. "Long-term comparison of winter wheat-summer fallow vs. continuous annual no-till spring wheat. In *2010 Dryland Field Day Abstracts: Highlights of Research Progress, Technical Report 10-2*. Department of Crop and Soil Sciences, Washington State University, Pullman, WA.

Schillinger, W.F., R. Jirava, T.C. Paulitz, A.C. Kennedy, D.L. Young, T.C. Smith, and S.E. Schofstoll. 2010. "Long-term conservation and alternative cropping systems research in the typical wheat-fallow zone." In *2010 Dryland Field Day Abstracts: Highlights of Research Progress, Technical Report 10-2*. Department of Crop and Soil Sciences, Washington State University, Pullman, WA.

FEDERAL CASH TRANSACTIONS REPORT

(See instructions on the back. If report is for more than one grant or assistance agreement, attach completed Standard Form 272A.)

OMB APPROVAL NO. 0348-0003

1. Federal sponsoring agency and organizational element to which this report is submitted
 USDA - NRCS

2. RECIPIENT ORGANIZATION

Name: Washington Association of Wheat Growers

Number and Street: 109 E 1st Ave

City, State and ZIP Code: Ritzville, WA 99169

4. Federal grant or other identification number
 68-3A75-6-108

5. Recipient's account number or identifying number

6. Letter of credit number

7. Last payment voucher number

Give total number for this period

8. Payment Vouchers credited to your account 0

9. Treasury checks received (whether or not deposited) 0

10. PERIOD COVERED BY THIS REPORT

3. FEDERAL EMPLOYER IDENTIFICATION NO.

91-0621075

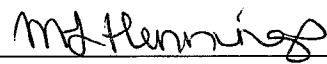
FROM (month, day, year)
 1/1/2010

TO (month, day, year)
 3/31/2010

11. STATUS OF FEDERAL CASH (See specific instructions on the back)	a. Cash on hand beginning of reporting period	\$ 77,229.31
	b. Letter of credit withdrawals	
	c. Treasury check payments	
	d. Total receipts (Sum of lines b and c)	0.00
	e. Total cash available (Sum of lines a and d)	77,229.31
	f. Gross disbursements	11,530.55
	g. Federal share of program income	
	h. Net disbursements (Line f minus line g)	11,530.55
	i. Adjustments of prior periods	
	j. Cash on hand end of period	\$ 65,698.76
12. THE AMOUNT SHOWN ON LINE 11j, ABOVE, REPRESENTS CASH REQUIREMENTS FOR THE ENSUING Days	13. OTHER INFORMATION	
	a. Interest income	\$ 0.00
	b. Advances to subgrantees or subcontractors	\$ 0.00

14. REMARKS (Attach additional sheets of plain paper, if more space is required)

15. CERIFICATION

I certify to the best of my knowledge and belief that this report is true in all respects and that all disbursements have been made for the purpose and conditions of the grant or agreement.	AUTHORIZED	SIGNATURE 	DATE REPORT SUBMITTED 03/17/2011
	CERTIFYING OFFICIAL	TYPED OR PRINTED NAME AND TITLE Michelle L Hennings, Project Director	TELEPHONE (Area Code, Number, Extension) 509-659-0610 Ext. 12

THIS SPACE FOR AGENCY USE

FEDERAL CASH TRANSACTIONS REPORT

(See instructions on the back. If report is for more than one grant or assistance agreement, attach completed Standard Form 272A.)

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1. Federal sponsoring agency and organizational element to which this report is submitted
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68-3A75-6-108

5. Recipient's account number or identifying number

6. Letter of credit number

7. Last payment voucher number

Give total number for this period

8. Payment Vouchers credited to your account **0**

9. Treasury checks received (whether or not deposited) **0**

10. PERIOD COVERED BY THIS REPORT

3. FEDERAL EMPLOYER IDENTIFICATION NO. **91-0621075**

FROM (month, day, year)
4/1/2010

TO (month, day, year)
6/30/2010

11. STATUS OF FEDERAL CASH

(See specific instructions on the back)

a. Cash on hand beginning of reporting period	\$ 65,698.76
b. Letter of credit withdrawls	
c. Treasury check payments	
d. Total receipts (Sum of lines b and c)	0.00
e. Total cash available (Sum of lines a and d)	65,698.76
f. Gross disbursements	15,491.57
g. Federal share of program income	
h. Net disbursements (Line f minus line g)	15,491.57
i. Adjustments of prior periods	
j. Cash on hand end of period	\$ 50,207.19

12. THE AMOUNT SHOWN ON LINE 11j, ABOVE, REPRESENTS CASH REQUIREMENTS FOR THE ENSUING

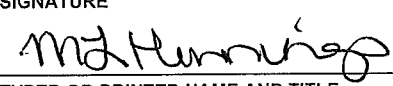
Days

13. OTHER INFORMATION

a. Interest income	\$ 0.00
b. Advances to subgrantees or subcontractors	\$ 0.00

14. REMARKS (Attach additional sheets of plain paper, if more space is required)

15. CERIFICATION

I certify to the best of my knowledge and belief that this report is true in all respects and that all disbursements have been made for the purpose and conditions of the grant or agreement.	AUTHORIZED	SIGNATURE 	DATE REPORT SUBMITTED 03/17/2011
	CERTIFYING OFFICIAL	TYPED OR PRINTED NAME AND TITLE Michelle L Hennings, Project Director	TELEPHONE (Area Code, Number, Extension) 509-659-0610 Ext. 12

THIS SPACE FOR AGENCY USE

FEDERAL CASH TRANSACTIONS REPORT

(See instructions on the back. If report is for more than one grant or assistance agreement, attach completed Standard Form 272A.)

OMB APPROVAL NO. 0348-0003

1. Federal sponsoring agency and organizational element to which this report is submitted
USDA - NRCS

2. RECIPIENT ORGANIZATION

Name: **Washington Association of Wheat Growers**

Number and Street: **109 E 1st Ave**

City, State and ZIP Code: **Ritzville, WA 99169**

4. Federal grant or other identification number 68-3A75-6-108	5. Recipient's account number or identifying number
6. Letter of credit number	7. Last payment voucher number
Give total number for this period	
8. Payment Vouchers credited to your account 0	9. Treasury checks received (whether or not deposited) 0

3. FEDERAL EMPLOYER IDENTIFICATION NO.

▶ **91-0621075**

10. PERIOD COVERED BY THIS REPORT	
FROM (month, day, year) 7/1/2010	TO (month, day, year) 9/30/2010

11. STATUS OF FEDERAL CASH

(See specific instructions on the back)

a. Cash on hand beginning of reporting period	\$ 50,207.19
b. Letter of credit withdrawals	
c. Treasury check payments	
d. Total receipts (Sum of lines b and c)	0.00
e. Total cash available (Sum of lines a and d)	50,207.19
f. Gross disbursements	12,917.01
g. Federal share of program income	
h. Net disbursements (Line f minus line g)	12,917.01
i. Adjustments of prior periods	
j. Cash on hand end of period	\$ 37,290.18

12. THE AMOUNT SHOWN ON LINE 11j, ABOVE, REPRESENTS CASH REQUIREMENTS FOR THE ENSUING

Days

13. OTHER INFORMATION

a. Interest income	\$ 0.00
b. Advances to subgrantees or subcontractors	\$ 0.00

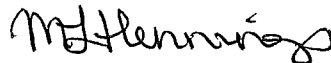
14. REMARKS (Attach additional sheets of plain paper, if more space is required)

15. CERIFICATION

I certify to the best of my knowledge and belief that this report is true in all respects and that all disbursements have been made for the purpose and conditions of the grant or agreement.

AUTHORIZED
 CERTIFYING
 OFFICIAL

SIGNATURE



TYPED OR PRINTED NAME AND TITLE
Michelle L Hennings, Project Director

DATE REPORT SUBMITTED

03/17/2011

TELEPHONE (Area Code, Number, Extension)

509-659-0610 Ext. 12

THIS SPACE FOR AGENCY USE

FEDERAL CASH TRANSACTIONS REPORT

(See instructions on the back. If report is for more than one grant or assistance agreement, attach completed Standard Form 272A.)

OMB APPROVAL NO. 0348-0003

1. Federal sponsoring agency and organizational element to which this report is submitted
 USDA - NRCS

2. RECIPIENT ORGANIZATION

Name: Washington Association of Wheat Growers

Number and Street: 109 E 1st Ave

City, State and ZIP Code: Ritzville, WA 99169

4. Federal grant or other identification number
 68-3A75-6-108

5. Recipient's account number or identifying number

6. Letter of credit number

7. Last payment voucher number

Give total number for this period

8. Payment Vouchers credited to your account 0

9. Treasury checks received (whether or not deposited) 0

10. PERIOD COVERED BY THIS REPORT

3. FEDERAL EMPLOYER IDENTIFICATION NO.

91-0621075

FROM (month, day, year)
 10/1/2010

TO (month, day, year)
 12/31/2010

11. STATUS OF FEDERAL CASH

(See specific instructions on the back)

a. Cash on hand beginning of reporting period	\$ 37,290.18
b. Letter of credit withdrawals	
c. Treasury check payments	
d. Total receipts (Sum of lines b and c)	0.00
e. Total cash available (Sum of lines a and d)	37,290.18
f. Gross disbursements	17,373.04
g. Federal share of program income	
h. Net disbursements (Line f minus line g)	17,373.04
i. Adjustments of prior periods	
j. Cash on hand end of period	\$ 19,917.14

12. THE AMOUNT SHOWN ON LINE 11j, ABOVE, REPRESENTS CASH REQUIREMENTS FOR THE ENSUING

Days

13. OTHER INFORMATION

a. Interest income	\$ 0.00
b. Advances to subgrantees or subcontractors	\$ 0.00

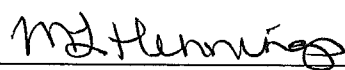
14. REMARKS (Attach additional sheets of plain paper, if more space is required)

15. CERTIFICATION

I certify to the best of my knowledge and belief that this report is true in all respects and that all disbursements have been made for the purpose and conditions of the grant or agreement.

AUTHORIZED
 CERTIFYING
 OFFICIAL

SIGNATURE



TYPED OR PRINTED NAME AND TITLE
 Michelle L Hennings, Project Director

DATE REPORT SUBMITTED
 03/17/2011

TELEPHONE (Area Code, Number, Extension)
 509-659-0610 Ext. 12

THIS SPACE FOR AGENCY USE

FEDERAL CASH TRANSACTIONS REPORT

OMB APPROVAL NO. 0348-0003

(See instructions on the back. If report is for more than one grant or assistance agreement, attach completed Standard Form 272A.)

1. Federal sponsoring agency and organizational element to which this report is submitted
 USDA - NRCS

2. RECIPIENT ORGANIZATION

Name: Washington Association of Wheat Growers

Number and Street: 109 E 1st Ave

City, State and ZIP Code: Ritzville, WA 99169

4. Federal grant or other identification number
 68-3A75-6-108

5. Recipient's account number or identifying number

6. Letter of credit number

7. Last payment voucher number

Give total number for this period

8. Payment Vouchers credited to your account 0

9. Treasury checks received (whether or not deposited) 0

3. FEDERAL EMPLOYER IDENTIFICATION NO.

91-0621075

10. PERIOD COVERED BY THIS REPORT

FROM (month, day, year)
 1/1/2011

TO (month, day, year)
 2/6/2011

11. STATUS OF FEDERAL CASH

FEDERAL

CASH

(See specific instructions on the back)

a. Cash on hand beginning of reporting period	\$ 19,917.14
b. Letter of credit withdrawals	
c. Treasury check payments	
d. Total receipts (Sum of lines b and c)	0.00
e. Total cash available (Sum of lines a and d)	19,917.14
f. Gross disbursements	19,917.14
g. Federal share of program income	
h. Net disbursements (Line f minus line g)	19,917.14
i. Adjustments of prior periods	
j. Cash on hand end of period	\$ 0.00

12. THE AMOUNT SHOWN ON LINE 11j, ABOVE, REPRESENTS CASH REQUIREMENTS FOR THE ENSUING

Days

13. OTHER INFORMATION

a. Interest income	\$ 0.00
b. Advances to subgrantees or subcontractors	\$ 0.00

14. REMARKS (Attach additional sheets of plain paper, if more space is required)

FINAL REPORT

15. CERTIFICATION

I certify to the best of my knowledge and belief that this report is true in all respects and that all disbursements have been made for the purpose and conditions of the grant or agreement.

AUTHORIZED
 CERTIFYING
 OFFICIAL

SIGNATURE



TYPED OR PRINTED NAME AND TITLE
 Michelle L Hennings, Project Director

DATE REPORT SUBMITTED

03/17/2011

TELEPHONE (Area Code, Number, Extension)

509-659-0610 Ext. 12

THIS SPACE FOR AGENCY USE