WASHINGTON STATE UNIVERSITY
TRI-CITIES

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I am responding to your inquiry, forwarded to me from Rick Melnicoe, Director of the Western Integrated Pest Management Center, on August 30, 2004, regarding the use of herbicides on rangeland and on acreage under contract in the Conservation Reserve Program (CRP). This response provides what information I was able to gather for the states of Alaska, Idaho, Oregon, Utah, and Washington.

As a general comment, it proved difficult to get detailed information on herbicide use on both CRP lands and rangeland for many reasons. The conservation plans established by the Natural Resources Conservation Service (NRCS) do not specify how growers should control weeds. Weed management practices on rangeland vary because the land itself can be privately, publicly, or tribally owned. Further, the public portion may be managed by either the Bureau of Land Management (BLM) or the US Forest Service (USFS). Whoever administers the land prescribes the methods for weed control. To add to the uncertainty, while USFS and BLM managers do have detailed information on herbicide use, no distinction is made between what is used on forested areas and what is used on rangeland. Even the estimates given for total rangeland acreage in each state varied. One person I spoke to in Washington pointed out that everyone relied on an assessment that was more than 20 years old for range information and that significant shifts had taken place in land use in the intervening years. If information on herbicide use in CRP lands and rangeland is important, perhaps USDA should give some consideration to funding a formal land-use and/or weed control assessment for CRP lands and rangeland.

Throughout this report, unless otherwise noted, the listed herbicides are applied at the labeled rates.

Herbicide Use on CRP Lands

The numbers used below for CRP acreage in each of the states are from *Conservation Reserve Program Monthly Summary – July 2004*, found on the Farm Services Agency web page at http://www.fsa.usda.gov/dafp/cepd/stats/Jul2004.pdf .

Alaska (29,522 acres) - There are no herbicides used on Alaska CRP lands because in this state there are minimal noxious weeds or invasive species. Here growers are mostly concerned with controlling woody plants (e.g., willows, aspen) and this is done by mowing or burning. While most Alaskan CRP lands are now in their second 10-year contract cycle, even on newly established CRP sites, no herbicides are used pre-plant. Because the practice of mowing and burning for woody plant control results in root crowns, Phil Kaspari, Land Resources Agent with the University of Alaska Fairbanks, does feel that there should be some herbicide use. He would like to run trials this fall or spring using 2,4-D, metsulfuron methyl (Ally/Cimarron), metsulfuron methyl + dicamba + 2,4-D (Cimarron Max) and imazapic (Plateau).

Idaho (792,774 acres) - In Idaho, glyphosate is used pre-plant or sometimes pre-emergence for weed control on 50% of the new CRP acreage. There is also some limited use of bromoxynil, for early broadleaf weed control, early in stand establishment. Once the CRP stand has been established growers may make spot treatments for perennial weed control using picloram (Tordon), quinclorac (Paramount), 2,4-D, and/or dicamba. In first year post-establishment grass stands this spot treatment is applied to 15% of the acreage. This decreases to essentially nothing by the second year. In other types of stands, in the first year post-establishment, bromoxynil and MCPA are use on approximately 10% of the acreage. This number drops to 5% in year two. From there on, in all stands, there is very little herbicide used on CRP lands. The only herbicide treatments that are made are spot treatments for noxious weed control.

Oregon (500,862 acres) – The majority of CRP acreage in Oregon is located in the Columbia Basin and because land coming into the program has been farmed for many years, typically pre-plant weed control can be accomplished by mechanical cultivation. After planting all chemical weed control is spot treatment. Oregon Farm Services personnel estimate that between 5 and 10% of the CRP acreage is spot treated with herbicides in the first year post-establishment. The percentage of the acreage treated drops to below 5% in the second year and is less than 1% thereafter. There are no records of what herbicides are being used but it is likely that the chemicals used for spot treatment are similar to those listed for use in Washington and Idaho.

Utah (200,244 acres) – Currently there is very little herbicide being applied to CRP acreage in Utah. The majority of the CRP land has been established for over 15 years and little chemical weed control, other than that necessary for the control of noxious weeds, is done. For new CRP contracts, it is estimated that approximately 5 to 10% of the new acreage would be required to be treated with herbicides, prior to stand establishment. For pre-plant weed control growers use 2,4-D, glyphosate, dicamba, or a combination of these chemicals (Landmaster or Weedmaster). Weed control on the remaining 85% of the new CRP acreage is predominantly done by tillage with some limited burning. In the years following establishment, approximately 2% of the total acreage (3,000 to 4,000 acres each year) is spot treated with 2,4-D or dicamba. The use of herbicides following establishment of mixed stands has been low because a majority of the available chemicals kill the desired legumes planted with the grass.

Washington (1,392,702 acres) - For Washington, herbicide use on CRP lands varies depending on the stage of the stand (establishment, first year, second year, etc.) and its composition. On all CRP acreage the products used pre-plant are the same; growers treat roughly 2/3 of the acreage with glyphosate + 2,4-D (Landmaster) and 1/3 of the acreage with glyphosate + dicamba (Fallowmaster). Some MCPA may also be used. After planting, while plants and grasses are getting established, weed control is primarily accomplished by mowing.

Grass Stands: In the first year post-establishment between 75 and 90% of the acreage is treated with triasulfuron (Amber) or metsulfuron methyl (Ally/Cimarron) in combination with 2,4-D, dicamba, or MCPA. In the second year the treatment remains the same but it is estimated that the treated acreage decreases to 30%. In the following years weeds are spot treated with 2,4-D, MCPA, dicamba, picloram (Tordon), fluroxypyr (Starane), dicamba + triasulfuron (Rave), or metsulfuron methyl (Ally/Cimarron). The percentage of the acreage treated decreases to 5 to 10% with less acreage treated each year thereafter.

Other Stands (legumes, wild rose, burnet, sage): After establishment bromoxynil and MCPA are used on approximately 50% of the acreage in the first year post-establishment and on 25% of the acreage in year two. The spot treatment in the following years would be as described above under grass stands [2,4-D, MCPA, dicamba, picloram (Tordon), fluroxypyr (Starane), dicamba + triasulfuron (Rave), or metsulfuron methyl (Ally/Cimarron)] but the treated acreage is estimated to be lower at 3 to 5%. Growers are also using imazapic (Plateau) on approximately 1% of the acreage in years two and three.

General Comments on Herbicide Use on CRP Lands – The actual quantity of CRP acreage being treated in any one year depends entirely upon each state's pre-plant acreage, first year post-establishment acreage, etc. It cannot be simply correlated to overall CRP acreage. In order to better use the above information, you will need to gather that specific information from your colleagues at either USDA's Farm Services Agency or at USDA's Natural Resources Conservation Service offices.

Herbicide Use on Rangeland

The acreages cited below for Idaho, Oregon, and Washington were provided by Dr. Mike Borman, Extension Rangeland Specialist with Oregon State University, and are from the *Atlas of the Pacific Northwest – 8th Edition*, published in 1993. As stated earlier, rangeland may be privately, publicly, or tribally owned. In the discussion below some attempt is made to quantify herbicide use on private and public rangeland. No information was gathered on herbicide use on tribal rangelands. Attached to this letter please find a summary of herbicide use on BLM-managed lands that was prepared by Dr. Richard Lee, an IPM specialist with BLM. Information on herbicide use on USFS lands is from *Regional Report of Pesticide Use on National Forest System Lands Fiscal Year 2003* found at http://www.fs.fed.us/foresthealth/pesticide/pur/2003region_purs.doc . Information pertinent to the five states being discussed has been excerpted and is attached here.

Contained in the discussion below are some figures that were calculated based on assumptions known to be flawed. These assumptions are made to allow for a calculation of the percent of acreage treated and are only made in an attempt to back up other estimates given.

Alaska (16 million acres: Although there is some debate as to what should be considered rangeland in Alaska, the number used here is for the acreage of grassland in the state.) - Dr. Norm Harris, Range Ecologist, University of Alaska Fairbanks, estimates that less than 5% of Alaskan rangeland acreage is being treated with herbicides. This is supported by reports from both the BLM and the USFS. In the attached BLM herbicide use data, no herbicide applications

were reported for Alaska in 2003. Further, the USFS reports making a single glyphosate application to one acre of Alaskan USFS land for noxious weed control in FY 2003.

Idaho (22.3 million acres: Federal 15,682,400; Non-Federal 6,595,900) - According to Dr. Ken Sanders, Range Extension Specialist, University of Idaho, less than 1% of Idaho rangeland is treated with herbicides for noxious weed control. Very little of Idaho's rangeland is privately owned. The primary herbicides being used by the BLM are picloram (Tordon), glyphosate, and 2,4-D. The BLM is also using clopyralid, chlorsulfuron, metsulfuron methyl (Ally/Cimarron), dicamba, and triclopyr. (See the attached data for the actual BLM acreage treated with each chemical.) In Idaho the BLM manages a total of 11.8 million acres. In 2003, herbicides were applied to only 44,455 of those acres or 0.38% of their acreage. Although not all of the BLM-managed land is rangeland, this does show that very little herbicide is applied to BLM lands and consequently to BLM-managed rangeland. In FY 2003 the USFS made herbicide applications to 40,000 of the 21.6 million acres (0.18%) of Idaho land they manage. During this period the USFS used the following herbicides: picloram (Tordon), 2,4-D, clopyralid, dicamba, metsulfuron methyl (Ally/Cimarron), triclopyr, chlorsulfuron, imazapic (Plateau), glyphosate, and fosamine ammonium. (The actual acreage treated with each is listed on the attached spreadsheet.) If one assumes that all the herbicide applied by both the BLM and USFS was applied to rangeland and that this totaled all of the herbicide applications made to Idaho's rangeland, then 0.38% Idaho's rangeland is treated by herbicides. While these assumptions are clearly not sound, the resulting figures do not disagree with the estimate given by Dr. Sanders.

Oregon (22.3 million acres: Federal 13,135,800; Non-Federal 9,152,400) – According to BLM personnel in Oregon, 13 to 14 million acres of rangeland are managed by the BLM and, of this acreage, only 15,000 (0.12%) are treated with herbicides each year. As of this date, by court order, the only herbicides that can be used on BLM lands in Oregon are glyphosate, dicamba, picloram (Tordon), and 2,4-D.

Washington (7.2 million acres: Federal 1,667,600; Non-Federal 5,574,100) – Unlike the other states discussed here, the majority of Washington rangeland is privately held and little is managed by the BLM or USFS. According to Dr. Joe Yenish, Extension Weed Specialist, Washington State University, it is likely that no more than 10% of Washington's rangeland is treated with herbicides. According to Dr. Yenish, the most commonly used herbicides on Washington rangeland are glyphosate, 2,4-D, dicamba, picloram (Tordon), triasulfuron (Amber), and metsulfuron methyl (Ally/Cimarron).

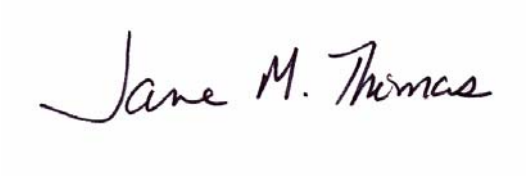
In Oregon and Washington combined (USFS Region 6), there is a total of 11 million acres of rangeland that is managed by the US Forest Service. In FY 2003, the most recent information available, a total of 7,762 acres of Oregon and Washington national forest lands were treated with herbicides for the control of noxious weeds. Herbicide use on USFS lands in Oregon and Washington is limited to dicamba, glyphosate, picloram, and triclopyr. If one assumes that all of the USFS acreage in Region 6 that was treated for noxious weeds is rangeland then the percentage of USFS-managed rangeland in Oregon and Washington treated with herbicides is 0.07%. However, because of using the assumption that all treated USFS acreage is rangeland, this number is likely much higher than the actual value.

Utah (54.3 million acres: from *Rangeland Resources of Utah* a 1989 publication from Utah State University) - The most common herbicides being used on Utah rangeland are 2,4-D and

tebuthiuron (Spike) along with clopyralid, dicamba, picloram (Tordon), and imazapic (Plateau). Shane Green, NRCS Range Conservation Specialist, reports that tebuthiuron (Spike) is being used for thinning sagebrush and that it is being applied at approximately half the Section 3 label rates. Dicamba or clopyralid are sometimes used in combination with 2,4-D for knapweed control; however, according to Dr. Steve Dewey, Weed Specialist, Utah State University, there are fewer than 1000 acres of knapweed treated on Utah's rangeland each year. The BLM and USFS also report using chlorsulfuron, glyphosate, metsulfuron methyl (Ally/Cimarron), imazapyr, and triclopyr, so it is likely that these herbicides are also being applied to some range acreage. University specialists report that Federal agencies in Utah use very little herbicide on rangeland. In Utah there is a total of 34.1 million acres of rangeland and grazable forest land that is publicly owned. The BLM reported using herbicides on approximately 29,000 acres of their Utah lands while the USFS reported use on only slightly more than 14,000 acres. Assuming that all the BLM and USFS herbicide applications shown on the attached information were made to rangeland, and that there was no significant herbicide application made to public rangeland by others, then herbicide applications were made to only 0.13% of publicly owned rangeland in Utah. Shane Green further reported that on privately owned rangelands only 15,000 acres, or 0.13% of the acreage, is treated with herbicides annually.

I hope that you find this information useful. I am attaching a contact list for your use should you have any additional questions

Sincerely,



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Herbicide Use on BLM Administered Lands - 2003 Data

For Oregon/Washington, Utah, Idaho, Alaska, and Montana

State	Active Ingredient	Acres Treated With Ground Equipment	Acres Treated With Aerial Equipment	Total Acres Treated	Application Situations
Alaska		0	0	0	
Idaho					
	Bromacil	8	0	8	Noncropland Applications Only
	Chlorsulfuron	283	338	621	Range, Pasture, or Noncropland Applic.
	Clopyralid	285	887	1172	Range, Pasture, or Noncropland Applic.
	2,4-D	3382.8	10	3392.8	Range, Pasture, or Noncropland Applic.
	Dicamba	213.8	0	213.8	Range, Pasture, or Noncropland Applic.
	Diuron	11	0	11	Noncropland Applications Only
	Fosamine	2	0	2	Noncropland Applications Only
	Glyphosate	225	28802	29027	Range, Pasture, or Noncropland Applic.
	Metsulfuron methyl	259	235	494	Range, Pasture, or Noncropland Applic.
	Picloram	3186.4	744	3930.4	Range, Pasture, or Noncropland Applic.
	Triclopyr	1.7	0	1.7	Range, Pasture, or Noncropland Applic.
	ID Total	**7857.7**	**31016**	**38873.7**	
Montana					
	Chlorsulfuron	30.8	0	30.8	Range, Pasture, or Noncropland Applic.
	Clopyralid	84.1	320	404.1	Range, Pasture, or Noncropland Applic.
	2,4-D	1208.9	110	1318.9	Range, Pasture, or Noncropland Applic.
	Dicamba	0.1	0	0.1	Range, Pasture, or Noncropland Applic.
	Diuron	1	0	1	Noncropland Applications Only
	Fosamine	6	0	6	Noncropland Applications Only
	Glyphosate	18	0	18	Range, Pasture, or Noncropland Applic.
	Imazapyr	1	40	41	Range, Pasture, or Noncropland Applic.
	Metsulfuron methyl	576.5	225	801.5	Range, Pasture, or Noncropland Applic.
	Picloram	1966.8	2460	4426.8	Range, Pasture, or Noncropland Applic.
	Triclopyr	73	0	73	Range, Pasture, or Noncropland Applic.
	MT Total	**3966.2**	**3155**	**7121.2**	
Oregon/Wash.					
	Clopyralid	42	0	42	Range, Pasture, or Noncropland Applic.
	2,4-D	3645	0	3645	Range, Pasture, or Noncropland Applic.
	Dicamba	1206.7	0	1206.7	Range, Pasture, or Noncropland Applic.
	Diuron	46	0	46	Noncropland Applications Only
	Glyphosate	5087.7	0	5087.7	Range, Pasture, or Noncropland Applic.
	Metsulfuron methyl	190.4	0	190.4	Range, Pasture, or Noncropland Applic.
	Picloram	1474.3	630	2104.3	Range, Pasture, or Noncropland Applic.
	Triclopyr	19.4	0	19.4	Range, Pasture, or Noncropland Applic.
	OR/WA Total	**11711.5**	**630**	**12341.5**	Range, Pasture, or Noncropland Applic.

State		Acres Treated With Ground Equipment	Acres Treated With Aerial Equipment	Total Acres Treated	Application Situations
Utah					
	Bromacil	316.5	0	316.5	Noncropland Applications Only
	Chlorsulfuron	57	0	57	Range, Pasture, or Noncropland Applic.
	Clopyralid	162.5	0	162.5	Range, Pasture, or Noncropland Applic.
	2,4-D	8158.2	0	8158.2	Range, Pasture, or Noncropland Applic.
	Dicamba	1194.5	0	1194.5	Range, Pasture, or Noncropland Applic.
	Diuron	349.5	0	349.5	Noncropland Applications Only
	Glyphosate	757.8	0	757.8	Range, Pasture, or Noncropland Applic.
	Imazapyr	89.6	0	89.6	Range, Pasture, or Noncropland Applic.
	Metsulfuron methyl	715.6	0	715.6	Range, Pasture, or Noncropland Applic.
	Picloram	5866	0	5866	Range, Pasture, or Noncropland Applic.
	Triclopyr	17	0	17	Range, Pasture, or Noncropland Applic.
	UT Total	**17684.2**	**0**	**17684.2**	

2003 Herbicide Use Summary - State Totals

	Acres Treated With Ground Equipment	Acres Treated With Aerial Equipment	Total Acres Treated	Application Situation
Alaska Total	0	0	0	
Idaho Total	7857.7	31016	38873.7	Range, Pasture, or Noncropland Applic.
Montana Total	3966.2	3155	7121.2	Range, Pasture, or Noncropland Applic.
Oregon/Washington Total	11711.5	630	12341.5	Range, Pasture, or Noncropland Applic.
Utah Total	17684.2		17684.2	Range, Pasture, or Noncropland Applic.

2003 Herbicide Use Summary - Active Ingredient Totals

Active Ingredient	Acres Treated With Ground Equipment	Acres Treated With Aerial Equipment	Total Acres Treated	Application Situation
Bromacil				Noncropland Applications
Chlorsulfuron	370.8	338	708.8	Range, Pasture, or Noncropland Applic.
Clopyralid	573.6	1207	1780.6	Range, Pasture, or Noncropland Applic.
2,4-D	16394.9	120	16514.9	Range, Pasture, or Noncropland Applic.
Dicamba	2615.1		2615.1	Range, Pasture, or Noncropland Applic.
Diuron				Noncropland Applications
Fosamine				Noncropland Applications
Glyphosate	6088.5	28802	34890.5	Range, Pasture, or Noncropland Applic.
Imazapyr	90.6	40	130.6	Range, Pasture, or Noncropland Applic.
Metsulfuron methyl	1741.5	460	2201.5	Range, Pasture, or Noncropland Applic.
Picloram	12493.5	3834	16327.5	Range, Pasture, or Noncropland Applic.
Triclopyr	111.1		111.1	Range, Pasture, or Noncropland Applic.

Excerpted Information from USFS's Regional Report of Pesticide Use on National Forest System Lands Fiscal Year 2003

State	FS Region	Forest	Pesticide Type	Active Ingredient	Management Objective	Area Treated	
AK	10	2	Herbicides	Glyphosate	Noxious Weed Control	1	Acres
						1	
					Total Treated Acreage Alaska		**1**
ID	1	5	Herbicides	2,4-D	Noxious Weed Control	48.15	Acres
ID	1	17	Herbicides	2,4-D	Noxious Weed Control	637.1	Acres
ID	1	4	Herbicides	2,4-D	Noxious Weed Control	976.1	Acres
ID	4	2	Herbicides	2,4-D	Noxious Weed Control	106	Acres
ID	4	12	Herbicides	2,4-D	Noxious Weed Control	148.5	Acres
ID	4	14	Herbicides	2,4-D	Noxious Weed Control	66.4	Acres
ID	4	15	Herbicides	2,4-D	Noxious Weed Control	5192	Acres
						7174	
ID	4	2	Herbicides	Chlorsulfuron	Noxious Weed Control	470	Acres
ID	4	14	Herbicides	Chlorsulfuron	Noxious Weed Control	274	Acres
ID	4	15	Herbicides	Chlorsulfuron	Noxious Weed Control	59	Acres
						803	
ID	1	4	Herbicides	Clopyralid	Noxious Weed Control	0	3
ID	1	4	Herbicides	Clopyralid	Noxious Weed Control	0.25	Acres
ID	1	4	Herbicides	Clopyralid	Noxious Weed Control	701.4	Acres
ID	1	4	Herbicides	Clopyralid	Noxious Weed Control	0	Acres
ID	1	5	Herbicides	Clopyralid	Noxious Weed Control	537.12	Acres
ID	1	17	Herbicides	Clopyralid	Noxious Weed Control	258	Acres
ID	4	2	Herbicides	Clopyralid	Noxious Weed Control	1586.8	Acres
ID	4	12	Herbicides	Clopyralid	Noxious Weed Control	151.5	Acres
ID	4	14	Herbicides	Clopyralid	Noxious Weed Control	588	Acres
						3823	
ID	1	4	Herbicides	Dicamba	Noxious Weed Control	1	Acres
ID	1	4	Herbicides	Dicamba	Noxious Weed Control	148	Acres
ID	1	17	Herbicides	Dicamba	Noxious Weed Control	83	Acres
ID	4	2	Herbicides	Dicamba	Noxious Weed Control	250	Acres
ID	4	14	Herbicides	Dicamba	Noxious Weed Control	0	Acres
ID	4	15	Herbicides	Dicamba	Noxious Weed Control	2113	Acres
						2595	
ID	4	2	Herbicides	Fosamine ammonium	Noxious Weed Control	42	Acres
ID	4	14	Herbicides	Fosamine ammonium	Noxious Weed Control	12.2	Acres
						54	
ID	1	4	Herbicides	Glyphosate	Noxious Weed Control	3	Acres
ID	1	4	Herbicides	Glyphosate	Noxious Weed Control	5.25	Acres
ID	1	5	Herbicides	Glyphosate	Noxious Weed Control	465.4	Acres
ID	1	17	Herbicides	Glyphosate	Noxious Weed Control	11	Acres
ID	4	2	Herbicides	Glyphosate	Noxious Weed Control	80.6	Acres
ID	4	12	Herbicides	Glyphosate	Noxious Weed Control	12	Acres
ID	4	14	Herbicides	Glyphosate	Noxious Weed Control	15.8	Acres
ID	4	15	Herbicides	Glyphosate	Noxious Weed Control	4	Acres
						597	
ID	4	2	Herbicides	Imazapic	Noxious Weed Control	118	Acres

State	FS Region	Forest	Pesticide Type	Active Ingredient	Management Objective	Area Treated	
ID	4	14	Herbicides	Imazapic	Noxious Weed Control	563.8	Acres
ID	4	15	Herbicides	Imazapic	Noxious Weed Control	28	Acres
						710	
ID	1	4	Herbicides	Metsulfuron-methyl	Noxious Weed Control	212.9	Acres
ID	1	5	Herbicides	Metsulfuron-methyl	Noxious Weed Control	101.35	Acres
ID	1	17	Herbicides	Metsulfuron-methyl	Noxious Weed Control	0.1	Acres
ID	4	2	Herbicides	Metsulfuron-methyl	Noxious Weed Control	661	Acres
ID	4	12	Herbicides	Metsulfuron-methyl	Noxious Weed Control	10.5	Acres
ID	4	14	Herbicides	Metsulfuron-methyl	Noxious Weed Control	252	Acres
ID	4	15	Herbicides	Metsulfuron-methyl	Noxious Weed Control	711	Acres
						1949	
ID	1	4	Herbicides	Picloram	Noxious Weed Control	2517.74	Acres
ID	1	5	Herbicides	Picloram	Noxious Weed Control	112.37	Acres
ID	1	17	Herbicides	Picloram	Noxious Weed Control	258	Acres
ID	4	2	Herbicides	Picloram	Noxious Weed Control	11738.2	Acres
ID	4	12	Herbicides	Picloram	Noxious Weed Control	4.5	Acres
ID	4	14	Herbicides	Picloram	Noxious Weed Control	2151.4	Acres
ID	4	15	Herbicides	Picloram	Noxious Weed Control	3998	Acres
						20780	
ID	1	4	Herbicides	Triclopyr	Noxious Weed Control	834	Acres
ID	1	5	Herbicides	Triclopyr	Noxious Weed Control	0.2	Acres
ID	1	17	Herbicides	Triclopyr	Noxious Weed Control	0	Acres
ID	4	2	Herbicides	Triclopyr	Noxious Weed Control	549.6	Acres
ID	4	15	Herbicides	Triclopyr	Noxious Weed Control	145	Acres
						1529	
					Total Treated Acreage Idaho		**40014**
OR & WA	6	1	Herbicides	Dicamba	Noxious Weed Control	177	Acres
OR & WA	6	7	Herbicides	Dicamba	Noxious Weed Control	98.35	Acres
OR & WA	6	14	Herbicides	Dicamba	Noxious Weed Control	13.011	Acres
OR & WA	6	16	Herbicides	Dicamba	Noxious Weed Control	119	Acres
OR & WA	6	17	Herbicides	Dicamba	Noxious Weed Control	120	Acres
						527	
OR & WA	6	1	Herbicides	Glyphosate	Noxious Weed Control	7	Acres
OR & WA	6	2	Herbicides	Glyphosate	Noxious Weed Control	400	Acres
OR & WA	6	7	Herbicides	Glyphosate	Noxious Weed Control	22	Acres
OR & WA	6	14	Herbicides	Glyphosate	Noxious Weed Control	25.506	Acres
OR & WA	6	16	Herbicides	Glyphosate	Noxious Weed Control	53.5	Acres
OR & WA	6	17	Herbicides	Glyphosate	Noxious Weed Control	4	Acres
OR & WA	6	17	Herbicides	Glyphosate	Noxious Weed Control	17.65	Acres
OR & WA	6	21	Herbicides	Glyphosate	Noxious Weed Control	85	Acres
OR & WA	6	08 (17)	Herbicides	Glyphosate	Noxious Weed Control	10.5	Acres
						625	
OR & WA	6	1	Herbicides	Picloram	Noxious Weed Control	35	Acres
OR & WA	6	2	Herbicides	Picloram	Noxious Weed Control	5	Acres
OR & WA	6	6	Herbicides	Picloram	Noxious Weed Control	391	Acres
OR & WA	6	7	Herbicides	Picloram	Noxious Weed Control	224.8	Acres
OR & WA	6	14	Herbicides	Picloram	Noxious Weed Control	107.6333	Acres
OR & WA	6	15	Herbicides	Picloram	Noxious Weed Control	60	Acres
OR & WA	6	16	Herbicides	Picloram	Noxious Weed Control	1027	Acres

State	FS Region	Forest	Pesticide Type	Active Ingredient	Management Objective	Area Treated	
OR & WA	6	17	Herbicides	Picloram	Noxious Weed Control	6	Acres
OR & WA	6	17	Herbicides	Picloram	Noxious Weed Control	338.7	Acres
OR & WA	6	21	Herbicides	Picloram	Noxious Weed Control	3910	Acres
OR & WA	6	08 (17)	Herbicides	Picloram	Noxious Weed Control	364.5	Acres
						6470	
OR & WA	6	16	Herbicides	Triclopyr	Noxious Weed Control	140	Acres
						140	
				Total Treated Acreage Oregon and Washington			**7762**
UT	4	1	Herbicides	2,4-D	Noxious Weed Control	251.5	Acres
UT	4	7	Herbicides	2,4-D	Noxious Weed Control	97	Acres
UT	4	8	Herbicides	2,4-D	Noxious Weed Control	8645.4	Acres
UT	4	10	Herbicides	2,4-D	Noxious Weed Control	6	Acres
UT	4	18	Herbicides	2,4-D	Noxious Weed Control	414.72	Acres
UT	4	19	Herbicides	2,4-D	Noxious Weed Control	1460	Acres
UT	4	19	Herbicides	2,4-D	Noxious Weed Control	207	Acres
						11082	
UT	4	19	Herbicides	Chlorsulfuron	Noxious Weed Control	15	Acres
UT	4	19	Herbicides	Chlorsulfuron	Noxious Weed Control	130	Acres
						145	
UT	4	1	Herbicides	Clopyralid	Noxious Weed Control	10	Acres
UT	4	10	Herbicides	Clopyralid	Noxious Weed Control	75	Acres
						85	
UT	4	1	Herbicides	Dicamba	Noxious Weed Control	1	Acres
UT	4	8	Herbicides	Dicamba	Noxious Weed Control	0	Acres
UT	4	8	Herbicides	Dicamba	Noxious Weed Control	0	Acres
UT	4	18	Herbicides	Dicamba	Noxious Weed Control	702	Acres
UT	4	19	Herbicides	Dicamba	Noxious Weed Control	5	Acres
UT	4	19	Herbicides	Dicamba	Noxious Weed Control	194.2	Acres
						902	
UT	4	1	Herbicides	Glyphosate	Noxious Weed Control	16.5	Acres
UT	4	7	Herbicides	Glyphosate	Noxious Weed Control	70	Acres
UT	4	10	Herbicides	Glyphosate	Noxious Weed Control	130	Acres
UT	4	19	Herbicides	Glyphosate	Noxious Weed Control	0.5	Acres
						217	
UT	4	1	Herbicides	Metsulfuron-methyl	Noxious Weed Control	77.8	Acres
UT	4	18	Herbicides	Metsulfuron-methyl	Noxious Weed Control	379.12	Acres
						457	
UT	4	1	Herbicides	Picloram	Noxious Weed Control	33	Acres
UT	4	7	Herbicides	Picloram	Noxious Weed Control	929	Acres
UT	4	8	Herbicides	Picloram	Noxious Weed Control	240	Acres
UT	4	18	Herbicides	Picloram	Noxious Weed Control	330.85	Acres
UT	4	19	Herbicides	Picloram	Noxious Weed Control	2	Acres
UT	4	19	Herbicides	Picloram	Noxious Weed Control	60	Acres
						1595	
					Total Treated Acreage Utah		**14266**

Contact List for Herbicide Use on CRP and Rangeland

Crop:	Last Name:	First Name:	Organization:	Title:	Phone:	Email:	Responsible State:
conservation reserve program	Kaspari	Phil	University of Alaska Fairbanks	Land Resources Agent	(907) 895-4215	fnpnk@uaf.edu	Alaska
conservation reserve program	Greear	Jean	Farm Service Agency	CRP Specialist	(208) 378-5650	Jean.Greear@id.usda.gov	Idaho
conservation reserve program	Morishuta	Don	University of Idaho	Cereal & Sugarbeet Weed Spec	(208) 736-3616	don@uidaho.edu	Idaho
conservation reserve program	Loop	Lois	Farm Service Agency	CRP Specialist	(503) 692-6830	Lois.Loop@or.usda.gov	Oregon
conservation reserve program	Dewey	Steve	Utah State University	Extension Weed Specialist	(435) 797-2256	steved@ext.usu.edu	Utah
conservation reserve program	Goodrich	Kerry	Natural Resources Conservation Service	Agronomist	(801) 524-4568	kerry.goodrich@ut.usda.gov	Utah
conservation reserve program	Whitesides	Ralph	Utah State University	Extension Weed Specialist	(435) 797-8252	ralphw@ext.usu.edu	Utah
conservation reserve program	Clatterbuck	Bruce	Farm Service Agency	County Director, Franklin Co. Farm Service Agency	(509) 545-8543	Bruce.Clatterbuck@wa.usda.gov	Washington
conservation reserve program	Hamilton	Rod	Farm Service Agency	CRP Specialist	(509) 323-3015	rod.hamilton@wa.usda.gov	Washington
conservation reserve program	Parker	Bob	Washington State University	Extension Weed Specialist	(509) 786-9234	rparker@wsu.edu	Washington
conservation reserve program	Yenish	Joe	Washington State University	Weed Specialist	(509) 335-2961	yenish@wsu.edu	Washington
rangeland	Harris	Norm	University of Alaska Fairbanks	Range Ecologist	(907) 746-9467	ffnrh@uaf.edu	Alaska
rangeland	Bunting	Steve	University of Idaho	Professor Range Ecology	(208) 885-7103	sbunting@uidaho.edu	Idaho
rangeland	Sanders	Ken	University of Idaho	Range Specialist	(208) 736-3610	ksanders@uidaho.edu	Idaho
rangeland	Cota	Jesus	US Forest Service	Pesticide Specialist	(703) 605-5333	jcota@fs.fed.us	Multiple
rangeland	Frank	Larry	US Forest Service	Weed Specialist	(509) 522-6019	lfrank@fs.fed..us	Multiple
rangeland	Lee	Richard	Bureau of Land Management	Integrated Pest Management Specialist	(303) 236-1734	Richard_Lee@blm.gov	Multiple
rangeland	Smith	Gary	US Forest Service	Region 6 Pesticide Coordinator	(503) 808-2914	gsmith03@fs.fed.us	Multiple
rangeland	Borman	Mike	Oregon State University	Extension Rangeland Specialist	(541) 737-1614	michael.borman@oregonstate.edu	Oregon
rangeland	Brown	Miles	Bureau of Land Management	Branch Chief	(503) 808-6143	miles_brown@or.blm.gov	Oregon
rangeland	Carpinelli	Michael	Oregon State University	Rangeland Weed Scientist	(541) 573-8911	michael.carpinelli@oregonstate.edu	Oregon

Contact List for Herbicide Use on CRP and Rangeland

Crop:	Last Name:	First Name:	Organization:	Title:	Phone:	Email:	Responsible State:
rangeland	Colquhoun	Jed	Oregon State University	Weed Specialist	(541) 737-8868	jed.colquhoun@oregonstate.edu	Oregon
rangeland	Fults	Janet	Oregon Department of Agriculture	Manager Pesticides Division	(503) 986-4635	jfults@oda.state.or.us	Oregon
rangeland	Tanaka	John	Oregon State University	Resource and Environmental Economist	(541) 562-5129	john.tanaka@oregonstate.edu	Oregon
rangeland	Banner	Roger	Utah State University	Extension Rangeland Specialist	(435) 797-2472	roger.banner@usu.edu	Utah
rangeland	Dewey	Steve	Utah State University	Extension Weed Specialist	(435) 797-2256	steved@ext.usu.edu	Utah
rangeland	Goodrich	Kerry	Natural Resources Conservation Service	Agronomist	(801) 524-4568	kerry.goodrich@ut.usda.gov	Utah
rangeland	Green	Shane	Natural Resources Conservation Service	Rangeland Conservation Specialist	(801) 524-4567	shane.green@ut.usda.gov	Utah
rangeland	Whitesides	Ralph	Utah State University	Extension Weed Specialist	(435) 797-8252	ralphw@ext.usu.edu	Utah
rangeland	Coggon	Dana	Washington State Noxious Weed Control Board	Education Coordinator	(360) 902-2082	dcoggon@agr.wa.gov	Washington
rangeland	Dobrowolski	Jim	Washington State University	Watershed Extension Specialist	(509) 335-7294	dobrowol@wsu.edu	Washington
rangeland	Parker	Bob	Washington State University	Extension Weed Specialist	(509) 786-9234	rparker@wsu.edu	Washington
rangeland	Yenish	Joe	Washington State University	Weed Specialist	(509) 335-2961	yenish@wsu.edu	Washington
All	Daniels	Catherine	Washington State University	Western IPM Center State Liaisons/ Representatives	(509) 372-7495	cdaniels@wsu.edu	Washington
	Deer	Howard	Utah State University		(435) 797-1602	howardd@ext.usu.edu	Utah
	Hirnyck	Ronda	University of Idaho		(208) 364-4046	rhirnyck@uidaho.edu	Idaho
	Jahns	Tom	University of Alaska Fairbanks		(907) 262-5824	fftrj@uaf.edu	Alaska
	Jenkins	Jeff	Oregon State University		(541) 737-5993	jenkinsj@ace.orst.edu	Oregon