CROP and SOIL NEWS/NOTES

January, 2009
Vol. 23, No. 1

DATES AND PLACES

February 19-21 - Oregon Society of Soil Scientists (OSSS) 2009 Winter Meeting will be held in Portland at the University Place Hotel & Conference Center (near PSU) http://cegs.pdx.edu/stay/upl/index.php. The theme is "the Human Soil Interface." Preregistration is required. For further information, please see page 13.

May 27 – Hyslop Farm Field Day, Corvallis. Details to follow in a later newsletter.

June 9 – Pendleton Station Field Day. 8 AM – 3 PM. Complimentary lunch. For more information, contact Steve Petrie (steven.petrie@oregonstate.edu or 541-278-4186).

June 10 – Sherman Station Field Day. 7:30 AM – Noon. Complimentary lunch. Contact Steve Petrie for details (steven.petrie@oregonstate.edu) or 541-278-4186).

June 30 – Hermiston Agricultural Research and Extension Center Centennial Celebration. Details will follow at a later date. For questions, please contact the office at HAREC at 541-567-8321.

July 8 – Malheur Experiment Station Annual Field Day, Ontario. 8:30 AM – 1 PM. A complimentary lunch will be served. Please make reservation for lunch for contacting Janet Jones (phone: 541-889-2174; email: janet.jones@oregonstate.edu.

August 25 – Malheur Experiment Station Onion Variety Day, Ontario. A complimentary lunch will be served. Please make reservation for lunch for contacting Janet Jones (phone: 541-889-2174; email: janet.jones@oregonstate.edu.

SEED PRODUCTION

Bill Young

Grass and Legume Seed Estimates for 2008

Once again I'm very pleased to be able provide our Extension estimates for grass and legume seed crops from the 2007-08 crop year. The process of gathering data on the value of all farm and ranch sales (estimates from each of Oregon's 36 counties) is under the leadership of Dr. Larry Burt, Extension Marketing Economist in the Department of Agricultural and Resource Economics (AREc).

These production statistics are currently available online through AREc's Oregon Agricultural Information Network (http://oain.oregonstate.edu) from 2008 back to 1976. This database contains county and state level statistics on all Oregon commodities. No password is needed for the guest login – just leave the password blank. Once you are beyond the login screen, there is a pull-down menu of multiple "canned" reports to choose from, or you may generate your own with the user defined report/query option. Generated files may be printed to screen or downloaded for use with any spreadsheet software.

Working with the AREc data source I have prepared a summary table on page 3 showing statistics on 2008's grass and legume seed acreage, production, and sales. The combined value of all grass and legume seed crops in the 2007-08 crop year ($505,309,000) increased 0.34% over the production in 2006-07 ($503,573,000). This slight increase of over $1.7 million in sales again sets a new benchmark beyond last year's historic high.

As stated above, the value of grass and legume seed crops in 2008 was $505,309,000. Of this total, grass seed crops accounted for 92.8% ($468,786,000); legume seed crops were valued at $36,523,000 (7.2%). The value of all grass seed species decreased 2.4% when compared with the 2006-07 crop

year, while the value of legume seed crops surged 55.3% over the previous year's sales to a new record high.

While prices were generally strong for most grass species, acres were down by 5.1% (26,132 acres) in 2007-08; thus, the small increase in sales in spite of decreased production. Legume seed crop acreage increased by 12.1% (3,850 acres), led by crimson clover (+59.2%), white clover (+11.4%), and red clover (+7.8%). Additionally, prices were strong for all legume seed crops in 2007-08.

This year, all but two grass species saw increased prices paid to producers; only tall fescue (-10.6%) and creeping bentgrass (-0.1%) were lower in value than the previous year. Price increases for other grass species were: Colonial bentgrass (+40.6%), orchardgrass (+32%), hard fescue (+29.3%), creeping red fescue (+27%), Kentucky bluegrass (+14.9%), perennial ryegrass (+13.6.8%) Chewings fescue (+13.1%), and annual ryegrass (+7.2%).

In spite of there being 26,132 fewer acres of grass seed produced in 2007-08, shifts in species grown compared to the previous year found more acres of: hard fescue (+23.5%), orchardgrass (+9.5%), Chewings fescue (+9.3%), tall fescue (+8.1%), creeping bentgrass (+6%), and Kentucky bluegrass (+2.2%). Species with reduced acres in production this year included: perennial ryegrass (-23.8%), Colonial bentgrass (-12.7%), rough bluegrass (-4.4%), annual ryegrass (-3.4%), and creeping red fescue (-1.1%).

Seed yields were lower this year for Colonial bentgrass (-9.1%), annual ryegrass (-5.8%), perennial ryegrass (-4.9%), and tall fescue (-1.3%) when compared to last year. All other species saw average to slightly higher seed yields. The combination of reduced acres and below average seed yields (in particular for perennial ryegrass) resulted in a 60,580,000 pound reduction in the total of all grass seed species grown. The 2007-08 grass crop is estimated at 724,931,000 pounds of seed, which is down 7.7% from the previous year's harvest of 785,511,000.

Prices paid for all legume seed crops were higher except for common vetch and hairy vetch, which were unchanged from one year ago. Increased prices were paid for the other species: red clover (+51.3%), white clover (+44.2%), alfalfa (+33.1%), crimson clover (+13.3%), and arrowleaf clover (+2.3%). Only two legume seed crops had reduced acreage in 2007-08: arrowleaf clover (-17%) and alfalfa (-9%). Total production of legume seeds was 21,529,000 pounds in 2007-08, which was a 15.2% increase over the previous crop year.

Frequently, however, we desire to know more specific information on production by county or crop reporting districts. The tables on pages 4 and 5 show how 2008 acres of grass and legume seed crop, respectively, were distributed across the state.

Finally, for a comparison of the OSU Extension estimates over the last three years (2006, 2007 and 2008), I have prepared two tables on pages 6 (grasses) and 7 (legumes).

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Department Web Page..... http://cropandsoil.oregonstate.edu/

OSU Cereals Extension Web Page.....	http://cropandsoil.oregonstate.edu/cereals/
OSU Forage Information System.....	http://forages.oregonstate.edu
OSU Potato Web Page	http://oregonstate.edu/potatoes/
OSU Seed Certification.....	http://www.oscs.oregonstate.edu
OSU Seed Laboratory	http://www.seedlab.oscs.oregonstate.edu
OSU Seed Crops Extension Web Page	http://cropandsoil.oregonstate.edu/seed-ext/
OSU Weeds Web Page.....	http://cropandsoil.oregonstate.edu/weeds/

Oregon Grass and Legume Seed Crops Preliminary **Estimates, 2008.**[1]

Species	Area Harvested	Yield per acre	Production	Price	Value of production
	(acres)	(lbs.)	(000 lbs.)	($ / cwt)	(000 $)
Grass					
Annual ryegrass	123,800	1,745	215,973	30.01	64,408
Perennial ryegrass	122,860	1,423	174,861	75.62	132,230
Tall fescue	174,580	1,502	262,237	67.07	175,833
Kentucky bluegrass	20,500	1,275	26,132	111.46	29,127
Rough bluegrass	2,200	1,130	2,486	112.00	2,784
Orchardgrass	17,010	957	16,277	184.73	30,058
Chewings fescue	10,180	1,199	12,202	94.32	11,509
Red fescue	7,400	1,011	7,485	91.70	6,864
Hard fescue	2,670	867	2,314	112.94	2,613
Colonial bentgrass	2,760	411	1,135	165.01	1,873
Creeping bentgrass	5,700	672	3,829	300.00	11,487
Total Grass	489,660		724,931		468,786
Legume					
Alfalfa	2,950	874	2,578	196.81	5,074
Red clover	15,650	571	8,938	181.62	16,233
Crimson clover	5,700	973	5,545	114.79	6,365
Common vetch	20	1,000	20	75.00	15
Hairy vetch	430	800	344	95.00	327
White clover	10,170	350	3,561	225.00	8,012
Arrowleaf clover	735	739	543	91.55	497
Total Legume	35,655		21,529		36,523
Total Grass & Legume	**525,315**		**746,460**		**505,309**

[1]Data collected by the Extension Economic Information Office, Oregon State University, and compiled by William C. Young III, Extension Agronomist, Department of Crop and Soil Science, OSU.

Extension estimates for Oregon forage and turf grass seed crop acreage, 2008[1].

County/District	Annual ryegrass	Perennial ryegrass	Tall fescue	Kentucky bluegrass	Rough bluegrass	Orchard-grass	Chewings fescue	Red fescue	Hard fescue	Colonial bentgrass	Creeping bentgrass	Total acres
Benton	12,300	2,300	16,500			3,570					650	35,320
Clackamas		3,500	3,000				500	400			450	7,850
Lane	9,750	6,000	9,700			1,900					450	27,800
Linn	90,200	40,800	40,500			4,300	1,350	620		1,200	850	179,820
Marion	1,500	37,000	18,000			650	7,000	3,500	1,600	1,300	3,300	73,850
Polk	6,780	10,100	29,000			4,600						50,480
Washington		5,360	23,940									29,300
Yamhill	2,420	11,800	29,730			1,570						45,520
Northwest District	122,950	116,860	170,370			16,590	8,850	4,520	1,600	2,500	5,700	449,940
Umatilla		4,500	3,300	5,500					300			13,600
Union				6,200			750	2,600	430			9,980
Northeast District		4,500	3,300	11,700			750	2,600	730			23,580
Jefferson				7,350	2,200							9,550
Southeast District				7,350	2,200							9,550
Morrow		1,500	650	1,400								3,550
Northcentral District		1,500	650	1,400								3,550
Other counties[2]	850		260	50		420	580	280	340	260		3,040
Oregon	**123,800**	**122,860**	**174,580**	**20,500**	**2,200**	**17,010**	**10,180**	**7,400**	**2,670**	**2,760**	**5,700**	**489,660**

[1]Data collected by the Extension Economic Information Office, Oregon State University, and compiled by William C. Young III, Extension Agronomist, Department of Crop and Soil Science, OSU.

[2]If there are less than three growers or if one grower represents 60% or more of the data, the data are confidential.

Extension estimates for Oregon legume seed crop acreage, 2008.[1]

County/District	Alfalfa	RedCrimson clover .clover	Common vetch	Hairy vetch	White clover	Arrowleaf clover ....acres	Total	
Benton		300				900		1,200
Clackamas		900	300					1,200
Lane						330		330
Linn		300				8,850		9,150
Marion		450	500					950
Multnomah		300						300
Polk		2,510						2,510
Washington		6,550	3,890		370			10,810
Yamhill		4,040	730					4,770
Northwest District		15,350	5,420		370	10,080		31,220
Malheur	2,650							2,650
Southeast District	2,650							2,650
Other counties[2]	300	300	280	20	60	90	735	1,785
Oregon	**2,950**	**15,650**	**5,700**	**20**	**430**	**10,170**	**735**	**35,655**

[1]Data collected by the Extension Economic Information Office, Oregon State University, and compiled by William C. Young III, Extension Agronomist, Department of Crop and Soil Science, OSU.

[2]If there are less than three growers or if one grower represents 60% or more of the data, the data are confidential.

Oregon Grass Seed Crop Estimates[1]

Estimates for 2006r, 2007r and 2008p

	Harvested Acres	Yield (lb/a)	Production (000 lbs.)	Price per cwt	Sales (000 $)
2006 Annual ryegrass	131,800	1,883	248,135	25.99	64,501
2007 Annual ryegrass	128,100	1,853	237,400	28.00	66,472
2008 Annual ryegrass	123,800	1,745	215,973	30.01	64,408
2006 Perennial ryegrass	170,570	1,415	241,369	69.22	167,083
2007 Perennial ryegrass	161,120	1,496	241,083	66.59	160,540
2008 Perennial ryegrass	122,860	1,423	174,861	75.62	132,230
2006 Tall fescue	158,170	1,510	238,783	68.29	163,054
2007 Tall fescue	161,490	1,521	245,587	75.01	184,225
2008 Tall fescue	174,580	1,502	262,237	67.07	175,833
2006 Kentucky bluegrass	21,240	1,065	22,623	90.91	20,567
2007 Kentucky bluegrass	19,760	1,112	21,969	97.01	21,311
2008 Kentucky bluegrass	20,500	1,275	26,132	111.46	29,127
2006 Rough bluegrass	2,260	1,010	2,283	113.00	2,580
2007 Rough bluegrass	2,300	1,030	2,369	112.00	2,653
2008 Rough bluegrass	2,200	1,130	2,486	112.00	2,784
2006 Orchardgrass	15,970	913	14,579	92.88	13,541
2007 Orchardgrass	15,530	766	11,897	139.99	16,654
2008 Orchardgrass	17,010	957	16,277	184.73	30,058
2006 Chewings fescue	8,250	1,215	10,025	74.28	7,446
2007 Chewings fescue	9,310	1,181	10,997	83.37	9,168
2008 Chewings fescue	10,180	1,199	12,202	94.32	11,509
2006 Red fescue	7,190	703	5,057	62.93	3,182
2007 Red fescue	7,480	1,005	7,521	72.23	5,432
2008 Red fescue	7,400	1,011	7,485	91.70	6,864
2006 Hard fescue	1,430	815	1,166	87.09	1,015
2007 Hard fescue	2,162	840	1,817	87.34	1,587
2008 Hard fescue	2,670	867	2,314	112.94	2,613
2006 Colonial bentgrass	3,510	499	1,753	115.00	2,016
2007 Colonial bentgrass	3,160	452	1,428	117.37	1,676
2008 Colonial bentgrass	2,760	411	1,135	165.01	1,873
2006 Creeping bentgrass	5,070	613	3,109	300.39	9,339
2007 Creeping bentgrass	5,380	640	3,443	300.35	10,341
2008 Creeping bentgrass	5,700	672	3,829	300.00	11,487
2006 Total Grass	525,460		788,882		454,324
2007 Total Grass	515,792		785,511		480,059
2008 Total Grass	489,660		724,931		468,786

[1]Data collected by the Extension Economic Information Office, Oregon State University and compiled by William C. Young III, Extension Agronomist, Department of Crop and Soil Science, OSU.

r = revised, p = preliminary.

Oregon Legume Seed Crop Estimates[1]

Estimates for 2006r, 2007r and 2008p

	Harvested Acres	Yield (lb/a)	Production (000 lbs.)	Price per cwt	Sales (000 $)
2006 Alfalfa	3,880	616	2,392	131.56	3,147
2007 Alfalfa	3,240	645	2,090	147.90	3,091
2008 Alfalfa	2,950	874	2,578	196.81	5,074
2006 Red clover	15,610	554	8,644	106.94	9,244
2007 Red clover	14,520	626	9,088	120.03	10,908
2008 Red clover	15,650	571	8,938	181.62	16,233
2006 Crimson clover	4,300	831	3,575	64.70	2,313
2007 Crimson clover	3,580	784	2,806	101.34	2,844
2008 Crimson clover	5,700	973	5,545	114.79	6,365
2006 Common vetch	240	1,000	240	75.00	180
2007 Common vetch	20	1,000	20	75.00	15
2008 Common vetch	20	1,000	20	75.00	15
2006 Hairy vetch	320	800	256	90.00	230
2007 Hairy vetch	430	800	344	95.00	327
2008 Hairy vetch	430	800	344	95.00	327
2006 White clover	8,400	648	5,441	134.81	7,335
2007 White clover	9,130	403	3,677	156.00	5,736
2008 White clover	10,170	350	3,561	225.00	8,012
2006 Arrowleaf clover	1,010	746	753	84.29	635
2007 Arrowleaf clover	885	749	663	89.46	593
2008 Arrowleaf clover	735	739	543	91.55	497
2006 Total Legumes	33,760		21,301		23,084
2007 Total Legumes	31,805		18,688		23,514
2008 Total Legumes	35,655		21,529		36,523

[1]Data collected by the Extension Economic Information Office, Oregon State University and compiled by William C. Young III, Extension Agronomist, Department of Crop and Soil Science, OSU.

r = revised, p = preliminary.

SOILS

John Hart, Neil Christensen and Tom Silberstein

Update of Nmin Soil Test for Predicting N Fertilizer Needs for Winter Wheat

Even though January is the beginning of winter, in western Oregon it is the beginning of spring nitrogen management season for soft white winter wheat. The first step of a spring nitrogen management program is to collect a soil sample for the nitrogen mineralization or Nmin soil test during the last two weeks of January. Sampling during this period allows enough time for analysis of the soil sample (about two weeks) and calculation of fertilizer needs before application of N fertilizer at Feekes growth stage 5.

Application of spring N prior to Feekes growth stage 6 (jointing) is critical because rapid N uptake begins at this stage. In western Oregon, jointing typically occurs between mid-February and mid-March, but can begin as early as the first of February or as late as the first of April. Wheat grain yield decreases 10 to 15 bu/a when spring N application is delayed until late-March or early April.

Sampling and analyses for the Nmin test differs from other soil sampling and test procedures used in western Oregon. Sample to a depth of 12 inches and include a minimum of 20 soil cores representing the area to be fertilized. Keep the sample cool until it is delivered to the laboratory. Request three analyses from the laboratory: (1) ammonium-N, (2) nitrate-N, and (3) mineralizable N. Be sure the laboratory you choose can provide all analyses—not all laboratories offer a test for mineralizable N by anaerobic incubation. Request that analyses be expressed in parts per million (ppm) or milligrams per kilogram (mg/kg), not as pounds per acre.

For more information on the Nmin soil test, refer to: Using the Nitrogen Mineralization Soil Test to Predict Spring Fertilizer N Rate in Soft White Winter Wheat Grown in Western Oregon, FS 334-E. Electronic copies are available at: http://extension.oregonstate.edu/catalog/html/fs/fs334-e/

The Nmin test is relatively new, introduced when wheat acreage was minimal with most of the supporting research performed on Dayton, Amity, and Woodburn soils. Table 1 is a list of soil series on which the test was evaluated in 1994 through 2004.

Table 1. Soil series on which Nmin research trials were located in 1994 through 2004.

Soil Series
Amity
Camas
Chehulpum
Coberg
Dayton
Malabon
Mcbee
Newberg
Steiwer
Waldo
Woodburn

In 2008, the Nmin test was evaluated on Nekia, Courtney, and Sifton soil series. Spring N rates, grain yield and grain protein data are given in Table 2. The treatments were not replicated on the Sifton and Courtney soil and replicated twice on the Nekia soil. Nitrogen was applied as recommended by the Nmin soil test and approximately 35 and 70 lb N/a more than recommended by the Nmin test, field rate #1 and field rate #2.

Table 2. Wheat grain yield and protein concentration for three spring N rates on three soil series.

Soil Series	Spring N Rate	Grain Yield	Protein
	--- lb N /a ---	--- bu/a ---	--- % ---
Sifton			
Nmin predicted rate	85	60	8.1
Field N rate #1	115	98	8.8
Field N rate #2	150	88	9.5
Courtney			
Nmin predicted rate	80	83	7.3
Field N rate #1	115	73	7.5
Field N rate #2	150	95	9.0
Nekia			
Nmin predicted rate	85	118	9.5
Field N rate #1	125	110	10.5
Field N rate #2	160	112	11.2

Grain protein data can be used to check adequacy of spring N fertilizer rate. Maximum economic yield of soft white winter wheat is associated with grain protein concentrations between 8.0 and 10.5% when wheat yield is above 80 bu/a. Grain protein less than 8.5% suggests that N may have been inadequate, whereas grain protein greater than 10.5% suggests that N may

have been excessive or yield was limited by a factor other than N.

As shown by grain yield and grain protein, the Nmin soil test accurately predicted the need for spring N fertilizer only on the Nekia soil.

Grain yield and protein data from the Courtney site show that both the Nmin rate and field rate #1 were insufficient. Yield and grain protein increased as N rate increased. The Courtney soil is quite gravelly.

Yield and protein data from the site planted in Sifton soil requires careful examination. Grain yield, but not protein from the Nmin rate was substantially lower than for either field N rate. When 70 lb/a more N than the Nmin rate was added, yield decreased, but protein increased compared to addition of 35 lb N/a above the Nmin rate. The protein was adequate for both field rates, but marginal for the Nmin rate. The yield should not have been almost 40 bu/a lower for the Nmin rate than the field rate based on the protein values. A factor other than insufficient N likely limited yield.

The Sifton soil site was quite variable and the area where the field N rate #1 yield was measured was wetter than the other treated areas. The moisture difference is significant since this soil is gravelly. Additional moisture could easily have increased yield with the dry late spring and early summer of 2008.

The Nmin test has been very reliable in predicting an economic spring N rate for soft white winter wheat in western Oregon. It has not been tested on all soil series on which winter wheat might be planted. The data from 2008 illustrates situations in which it should be used cautiously.

Fields that are not uniform present problems in sampling and management. If a field has two or more distinctly different soil series, sampling and managing them separately is recommended. Unfortunately, sometimes the soil types are small and mixed so that separate management is not practical. In this situation, a sample from the soil type occupying the predominant acreage is a logical alternative.

Gravelly soils pose two problems. They are very difficult to sample. Success with the Nmin test is based on a uniform sample to a depth of 12 inches. Gravel complicates sampling. An auger rather than soil probe is recommended to sample these soils.

The second problem that may be present with gravelly soil is reduced volume. Some soils with the label “gravelly” contain 45% gravel. When almost half the soil volume is gravel, the remaining fine fraction of soil has to supply twice the amount of water and nutrients.

The Nmin test has been used successfully on a Camas soil, which is quite gravelly. An auger was used for sampling. A critical step in use of the Nmin test is collection of the soil sample. It has to represent the area and be from the top 12 inches of soil.

The Nmin is a tool or guide for determination of spring N rate. Use it with your experience for each field and check adequacy of the rate choice at harvest by measuring grain protein.

Summary

- Nmin soil test can be used to accurately predict spring N rate for soft white winter wheat in western Oregon.
- A representative sample is necessary.
- Some situations make collection of a representative sample difficult, such as two or more soil types that produce growth and yield variation in a short distance or more than 40% gravel.
- Nmin can be used to predict spring N rate on Nekia and Jory soil series.
- Use grain protein at harvest to evaluate your spring N rate choice and adjust the rate next year if necessary.
- The Nmin test has not been calibrated for spring wheat.

POTATOES

Silvia Rondon and Brian Charlton

Agriculture Production in Peru: Peruvian and American Perspective

Faculty from Oregon State University in Hermiston, Pendleton, and Klamath Falls visited Peru last October. The goal of the trip was to visit the International Potato Center, La Molina National Agrarian University, and local growers in Lima, Cuzco and Arequipa. The immense diversity of geography, natural resources, and varying climatic conditions was an experience all attending will remember for years to come.

The International Potato Center was our first tour stop. The International Potato Center or CIP (Spanish acronym) seeks to achieve food security in developing countries through scientific research activities primarily on potato. However, efforts also focus on sweet potato, and Andean root and tuber crops such as oca, mashua, and olluco. CIP is headquartered in La Molina,

outside of the Peruvian capital of Lima. CIP recruits an international team of scientists from 25 countries, supported by nationally recruited staff. During this trip, we visited the Virology, Pathology, Entomology and Seed Potato and Sweet Potato Programs; also the tissue culture and advance breeding laboratories. We learned about on-going research efforts focusing on improving several facets of potato production. As expected, efforts

to improve pest and disease resistance in commonly grown potato cultivars are vastly important in achieving food security. In addition, research efforts focus on maintaining and conserving the inherent biodiversity that exists in Peru and many other developing countries. Other efforts focused on improving integrated pest management strategies using biological control mechanisms, and advances in maintaining potato accessions in tissue culture. CIP maintains the world's largest bank of potato germplasm, including some 1500 samples of about 100 wild species collected in eight Latin American countries and 3800 traditional Andean cultivated potatoes.

La Molina National Agrarian University (UNALM, an acronym for Universidad Nacional Agraria La Molina) is a state-owned university in Lima and is the country's most noted university in the fields of agricultural and forestry sciences. The UNALM is an institution that seeks to serve

society by fostering higher education grounded in the humanities, science, technology and management of the renewable resources which includes agronomy, life and physical sciences, forestry, economics and planning, food sciences and technology, fisheries and animal science. For instance, a primary focus of the Horticulture program is to improve crop production of native plant species that have market potential. In addition, introduced herbs from other regions of the world are being evaluated to fill existing market demands. It was impressive to see the numerous wild and cultivated herbs that can be grown in Peru.

We also had the opportunity to visit a private agricultural school in Valle Grande located south of Lima. This school is similar to a 'technical or trade school' in the United States. The main focus of this school is to educate the current generation of subsistence-level family farms. Students spend two weeks at school headquarters learning basic scientific principles in a classroom setting. An off-site research farm also provides opportunities for 'hands-on' learning to further enforce principles learned in the classroom. Students then return home for two weeks with the hope of applying these learned principles in their family farm

operation. The cycle then repeats until graduation which normally takes 2 to 3 years to complete. The goals are to enhance crop production from a subsistence-level prospective but also to encourage opportunities for marketing surplus production to local markets.

High-tech agriculture is confined mostly in the northern part of Peru (La Libertad, Lambayeque) where crops such as asparagus can be grown successfully. Asparagus is the most important export vegetable in Peru with most production destined for European and North American markets. Unfortunately, visits to these production regions were not on our tour. Therefore, most of the agriculture production sites we visited consisted of low-input subsistence-level farming. We did visit one farm that utilized machinery to plant, harvest, and process corn destined for export to South East Asia. Product not meeting export standards were utilized as feed for an on-site dairy that supplied milk and milk-products to local markets. However, this operation was not the norm, as steep terrain farming prohibits the use of most machinery. Potatoes are adapted quite well for these high-altitudes and steep terrain conditions (12,000-13,000 feet). It was interesting to see how Peruvian growers still use old Inca techniques that have proven successful for centuries.

The trip was made more special by the fact that 2008 was the United Nations International Year of the Potato. It was exciting to see how important this crop is to Peru and the contributions it has made in assuring food security to world. It made us more aware of the importance of potato research and extension activities at OSU and our contributions to the Pacific Northwest industry in addition to furthering the mission of CIP on a global scale.

SEED CERTIFICATION

Sandy Smith

Summary of New Plantings for Oregon Certification

The accompanying table summarizes the applications for new plantings in 2008 submitted to the Oregon Seed Certification Service and processed as of January 6, 2009. Submissions for the four prior years are also listed for comparison*. While the number of crops represented (40) is comparable to recent years, the total acres planted and submitted for certification increased 11% overall from 2007.

In reviewing the crops with significant certification acreage, the following percentages indicate the change in the number of acres planted in 2008 relative to the crop's most recent five-year average (2003-2007): Tall fescue (-31%); Perennial ryegrass (-34%); Annual ryegrass (+132%); Kentucky bluegrass (-27%); Wheat (+51%) and Fine fescues (Chewings -13%; Hard -5%; and Red +33%). Comparisons to plantings in 2007 for some of these crops show: Tall fescue (-27%); Perennial ryegrass (+26%); Kentucky bluegrass (-10%); and Wheat (+35%).

Please keep in mind that the overall total acres for inspection in the program this crop year will depend on the number of acres replanted, and the acres retained or removed since last year. We will publish a summary of the acres applied for crop inspection in early May to provide a broader measure of certification activity for the 2009 crop season. This and other certification summaries are available in the Publications/Special Reports section of the Oregon Seed Certification Service home page, www.oscs.orst.edu.

	New Fields					New Acres				
Crop Kind	2008	2007	2006	2005	2004	2008	2007	2006	2005	2004
Alfalfa	3	4	1	2	5	279	240	21	119	259
Annual rape	14	25	26	21	13	563	1,219	808	519	199
Annual ryegrass	76	54	45	37	58	4,660	2,451	2,178	1,913	2,566
Arrowleaf clover		1	1	2	5		85	60	105	218
Barley	26	24	22	23	24	1,783	1,344	1,024	1,215	901
Big bluegrass					2					9
Blue fescue	2		1	2		90		48	53	
Blue wildrye					2					2
Brown mustard	1					32				
Chewings fescue	34	33	45	70	51	1,594	1,122	1,995	2,650	2,024
Chickpea	1	1	5	10	5	80	32	219	324	99
Chicory	1					2				
Club wheat	5	4	3	3	4	463	446	273	536	313
Colonial bentgrass	2	1	7	6	16	30	7	202	118	641
Creeping bentgrass	10	38	32	43	44	268	968	738	1,063	1,128
Crested dogtail	1	1				2	7			
Crimson clover	6		6	2	2	488		365	35	33
Festulolium					1					40
Field bean	1	1	2			5	125	230		
Field pea		1	1				7	3		
Garden pea	2					15				
Hard fescue	11	18	19	18	14	481	472	799	535	371
Idaho bentgrass				1					49	
Intermediate ryegrass	14	12	16	13	19	518	421	506	549	682
Kale	3	1		1	3	49	16		29	33
Kentucky bluegrass	77	94	119	107	153	3,702	4,126	4,326	5,471	6,675
Ladino clover	10	13	15	8	2	811	1,351	1,475	858	180
Lewis flax	2	1				17	16			
Little burnet		1		2	1		8		59	42
Meadow fescue				1					5	
Meadowfoam	4	2	7	7	5	402	28	209	127	142
Mountain brome				2					31	

Crop Kind	New Fields					New Acres				
	2008	2007	2006	2005	2004	2008	2007	2006	2005	2004
Oat	18	12	16	5	21	751	440	712	246	690
Orchardgrass	44	25	37	9	20	1,547	768	991	283	757
Oriental mustard	1			1	1	40			75	60
Perennial ryegrass	325	260	560	500	618	14,055	11,137	21,866	20,555	25,235
Red clover	22	13	20	14	11	872	483	896	509	567
Red fescue	46	21	47	39	44	2,079	790	1,961	1,291	2,043
Red oat	1		8	5		21		334	253	
Riverbank lupine		1					3			
Rough bluegrass	25	34	30	33	29	778	1,023	920	1,117	848
Seashore paspalum				10	2				118	113
Sheep fescue	4	4	2	2	1	92	69	99	190	30
Smooth brome		1					5			
Sudangrass	8	6	2	2	5	466	286	240	40	171
Sugar beet			5		15			117		15
Sunflower	11	5	2			713	225	101		
Swede					1					5
Tall fescue	295	433	616	385	479	13,997	19,078	25,389	17,804	20,435
Triticale	4	5	4	4	1	166	218	131	210	80
Tufted hairgrass			1	1	1			7	6	16
Turnip	3		2		5	70		57		136
Velvet bentgrass	1		5	3	2	19		112	49	30
Wheat	165	148	131	151	179	12,419	9,208	9,290	8,250	11,347
White clover	17	7	6	10	10	980	594	116	692	385
Winter rape		1					25			
Wood bluegrass				1	3				16	31
Totals	1,296	1,306	1,867	1,556	1,877	65,399	58,843	78,818	68,067	79,551

*Includes all applications received and processed by: 01/06/09; 01/14/08; 01/10/07; 01/09/06; and 01/10/05.

FOR YOUR INFORMATION

Oregon Society of Soil Scientists - OSSS Winter Meeting 2009
James Cassidy, OSSS President 2008-2009

I am very excited to invite you to this year's Oregon Society of Soil Scientists (OSSS) Winter Meeting – we have a great program shaping up. Please consider joining the society and coming to this very exciting meeting. The meeting is being held in Portland this year on Friday (all day) and Saturday (morning session) February 20-21 with a pre meeting gathering on the evening of the 19th at the hotel or nearby watering hole TBA. The theme for this years' meeting is "The Soil-Human Interface." As you can imagine the topic is very broad and allows for a great diversity of speakers ranging from the Ice Age Floods Artwork of Stev Ominski and Sonar Beam Survey results of Celilo Falls to the Greenroofs of Portland and Cemeteries and Natural Burial! Really, the speakers we have are going to provide something for everyone!

The meeting will be held at the University Place Hotel & Conference Center, 310 SW Lincoln, located on the southwest corner of SW 4th Avenue & Lincoln Street near PSU. I will have secured a block of rooms for our members and speakers for $89/night – make sure to identify yourself as being with the OSSS – and please reserve your room soon as rooms are limited. The registration fee for the meeting is $100 for non-students (registration only, for membership add an additional $30) and $60 for students (1-year membership, registration, and we even have a few rooms for crashing too!). As always, the registration fee includes all meals and the Saturday Field Trip (which you are not going to want to miss! – Lone Fir Pioneer Cemetery and Portland Underground Shanghai Tunnels!!!).

Students, if our student rooms are full-up by the time you decide to attend the meeting, please check for Youth Hostels in Portland, there are at least 3 in the downtown area that range in price from $17-$27/night. Also, we are planning a special Student Break-out session in the late afternoon on Friday where our members and speakers will be at your disposal to discuss job opportunities, science/research questions, business ideas, etc. And remember, we'll be in Portland so there will likely be fun late night activities happening.

One of the most exciting things about putting this year's meeting together was how eager many of the speakers are to meet you and ask questions of you regarding soils and possible research and other cooperative opportunities. See the list of topics and speakers on the next page of this newsletter or on the website and make plans now for your trip to Portland!

Please consider involvement in our society. This is a fun group of people with broad-ranging interest and experience. For more information regarding registration, please contact Joan Sandeno joan.sandeno@oregonstate.edu I look forward to hanging out with you all, listening to some great talks, meeting new people, and having some fun!

Make your arrangements today!

Oregon Society of Soil Scientists - OSSS Winter Meeting 2009
University Place - 310 SW Lincoln, Portland OR
Tentative Speakers List and Topics - Friday February 20th and Saturday the 21st

Speaker	Topic	Title / occupation
Mel Littell	Sonar beam survey - Having a look at Celilo Falls	Engineering Tech (Civil) and work for USACE Portland District
Bill Lang	Environmental History of Oregon and developing the Oregon Encylclopedia	History Department Portland State University
Kuri Gill	Preservation of Historic Cemetaries and More!	Historic Cemeteries Program Coordinator
Cynthia Beal	Natural Burial - The Future of Death!	Natural Burial Company founder
Scott Burns	Landslides in the Portland Area	PSU Geology
Tom Powers	Jory - Round two! State Soil Designation Moves Forward On President Cassidy's Watch!	Legislative Director
Keith Bellingham	"The Physics of Soil Moisture Sensors, and Vadose Zone Data Interpretations"	Stevens Water Monitoring Systems
Markus Kleber	A new geochemical model for environmental black carbon and what it means for the persistence and aging of charcoal in soils	Proffesor Soil Science - OSU
Stev Ominski	Ace Age Floods Art - how does he do it?	Oregon Artist
Tom Liptan	Greenroofs and Water Management in Portland	Ecoroof Program Manager - Sustainable Stormwater
Karen Lewotsky	Food Alliance - What It Is.	Certification Director - Food Alliance
Pat Hayes	Growing Oportunities for Local Value-added Barley Production: Organic and Otherwise	OSU Professor
Christophe Moni	Impact of the global warming on the leaching of carbon and nitrogen from an Oregonian soil under Grassland.	OSU Post Doc
Field Trip (Saturday)	1) Lone Fir Pioneer Cemetary 2) Shanghai Tunnels	1:00-2:30 3:00-4:00

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Crop and Soil News/Notes is published by the Extension Unit of the Department of Crop and Soil Science, Oregon State University. The newsletter is published six times yearly during the months of January, March, May, July, September and November.