

USA Grass and Legume Seed Data: Oregon Production 2004 to 2014

Background:

The State of Oregon, USA, continues to be the world leader in the grass and legume seed marketplace. With the turf grass seed sector dominating the grass and legume seed sector, Oregon finds itself the leader in the production of these seeds, mainly perennial ryegrass, annual ryegrass, tall fescue (turf varieties), and to some extent, fine fescues. On a world scale, Oregon produces the most seed from one region, and has the largest concentration of acres. What happens in the grass/legume seed industry in Oregon affects the world.

2014 Oregon Production

- **Production acres:**

After hitting a low in grass/legume seed acres in 2011 (416,000 acres), grass/legume seed acres rose for the 3rd consecutive year and saw 462,000 acres harvested in 2014. The majority of this seed is still made up grasses, which account for 90% of the total land base dedicated to grass or legume seed production.

Of the 418,000 acres of grass seed acres in 2014, tall fescue seed acres were at 134,000, with perennial ryegrass seed acres coming in at 112,000. Annual ryegrass seed acres were at 120,000. However, tall fescue acres did NOT change from 2013, whereas perennial ryegrass acres rose by 8,000, with annual ryegrass seed acres down 6,000. Fine fescues totaled 18,700 acres, up by 700 acres from 2013.

Kentucky bluegrass seed acres rose 10% from 2013, with 13,000 acres harvested in 2014.

Oregon Grass and Legume Seed Crops Preliminary Estimates: 2014					
	Area Harvested (acres)	Yield per Acre	Production (000 lbs.)	Price (\$ / cwt)	Value of Production (000 \$)
Annual ryegrass	120,830	2,227	269,077	27.00	72,651
Perennial ryegrass	112,230	1,680	188,451	84.00	158,299
Tall fescue	134,385	1,608	216,149	68.00	146,981
Kentucky bluegrass	13,205	1,377	18,181	126.00	22,908
Rough bluegrass	812	1,046	849	198.00	1,681
Orchardgrass	12,771	836	10,677	112.00	11,958
Chewings fescue	8,086	1,337	10,811	100.00	10,811
Red fescue	9,045	1,270	11,484	103.00	11,829
Hard fescue	1,626	1,178	1,916	104.00	1,993
Colonial bentgrass	2,650	492	1,304	270.00	3,521
Creeping bentgrass	2,910	657	1,912	334.00	6,386
Total Grasses	418,550		730,811		449,018
Alfalfa	5,184	848	4,395	272.00	11,954
Red clover	13,137	728	9,564	187.00	17,885
Crimson clover	12,777	979	12,509	160.00	20,014
Common vetch	531	1,326	704	53.00	373
Hairy vetch	1,125	596	670	125.00	838
White clover/Ladino	10,443	457	4,768	225.00	10,728
Arrowleaf clover	200	500	100	70.00	70
Total Legumes	43,397		32,710		61,862
Total Grass & Legume	461,947		763,521		510,880

Total Oregon legume seed acres rose in 2014 by 7.8%, led by 2000 new acres of alfalfa seed, 1,400 new acres of crimson clover. Legume seed acres were led by red clover (13,100 acres), crimson clover (12,800 acres) and 10,400 acres of white clover/ladino. Alfalfa seed rose to 5,200 acres. 2014 saw 43,400 legume seed acres in the state.

- **Total Production**

With above average yields of around 2,227 lbs./ac., total annual ryegrass production came in at over 269 million lbs. Total tall fescue production was at 216 million lbs., while perennial ryegrass production was at 188 million lbs. Average yields for all three crops came in above the 10 year average, Total fine fescue seed production (chewings, hard, creeping red) came in at over 24 million lbs.



Total legume seed produced in 2014 came in at over 32 million lbs., led by crimson clover (12.5 million lbs.) and red clover (9.5 million lbs.). Alfalfa seed and white clover/ladino saw total production at 4.4 million and 4.7 million lbs. respectively.

- **Price Quotes**

With better than average yields, and unexpected extra production, price quotes for most species fell from the previous year. Annual ryegrass (32¢/lb. to 27¢/lb.), perennial ryegrass (85.19¢/lb. to 84¢/lb.) and tall fescue (73.88¢/lb. to 68¢/lb.) all saw prices drop, but are still below 10 year average quotes. However, Oregon quotes for creeping red fescue rose 8.5% to \$1.03/lb. Chewings fescue also rose to \$1.00/lb. In total, Oregon's grass seed sector added \$449 million worth of value Oregon's economy. On average, Oregon's grass seed sector adds \$327 million to her economy annually (2004 to 2013 average.)

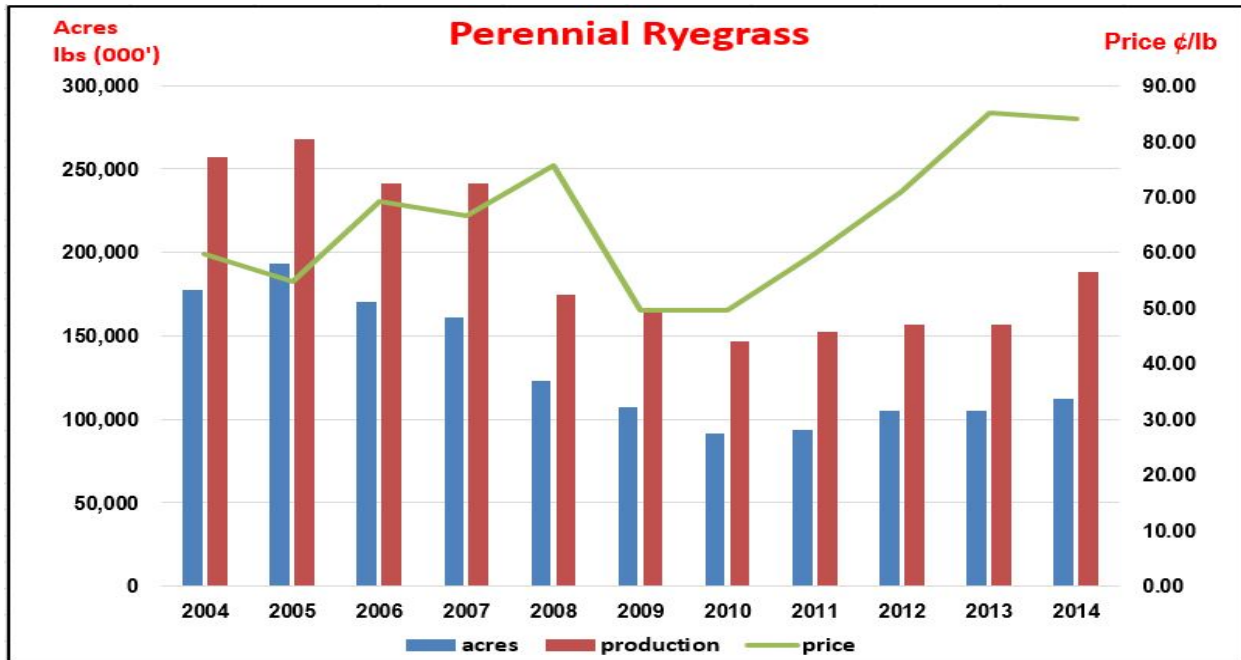


Legume seed quotes were led by alfalfa seed, which saw prices at \$2.72/lb. average for the year. White clover/ladino quotes were at \$2.25/lb., with red clover (\$1.87), and crimson clover (\$1.60) averaging over 1 dollar/lb for the year. The legume seed sector added over \$61 million to Oregon's economy in 2014,

Long Term Comparisons (10 year averages based on 2004-2013 data)

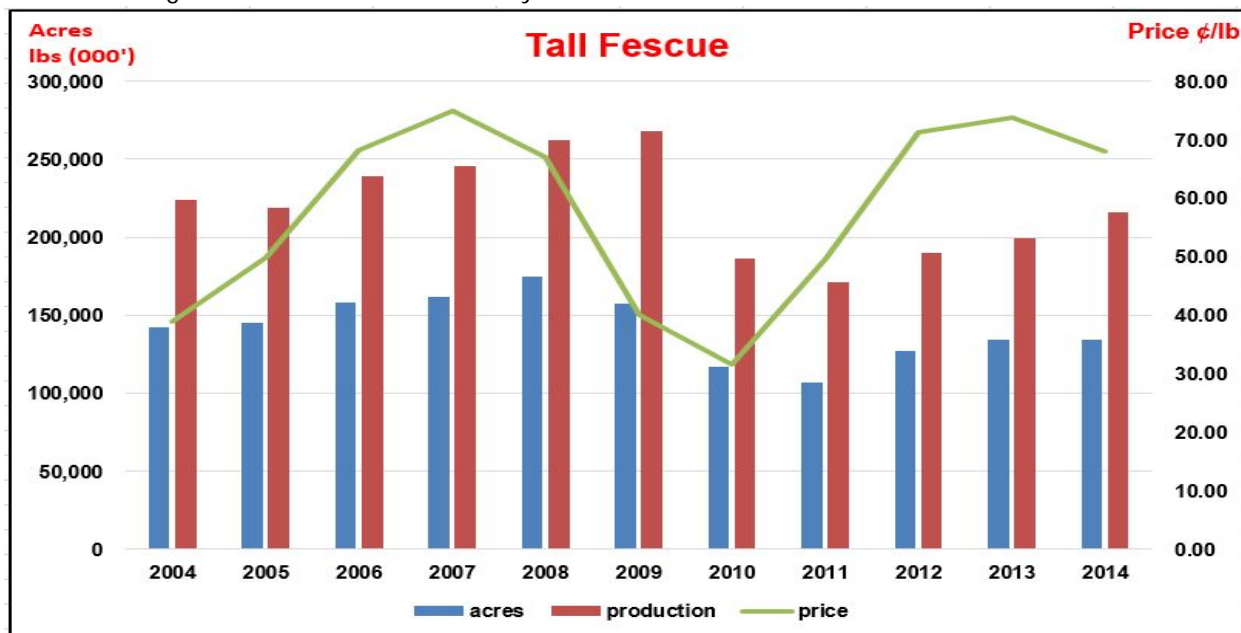
Perennial ryegrass notes:

- Has averaged 132,783 acres annually (2004-2013), 2005 saw over 192 million acres.
- Average annual production @ 196 million lbs., with average yields at 1,491 lbs./ac.
- Average price (2004-2013) 64.1¢/lb, with last year's price averaging 84¢/lb
- Contributes \$125 million annually to Oregon's economy.



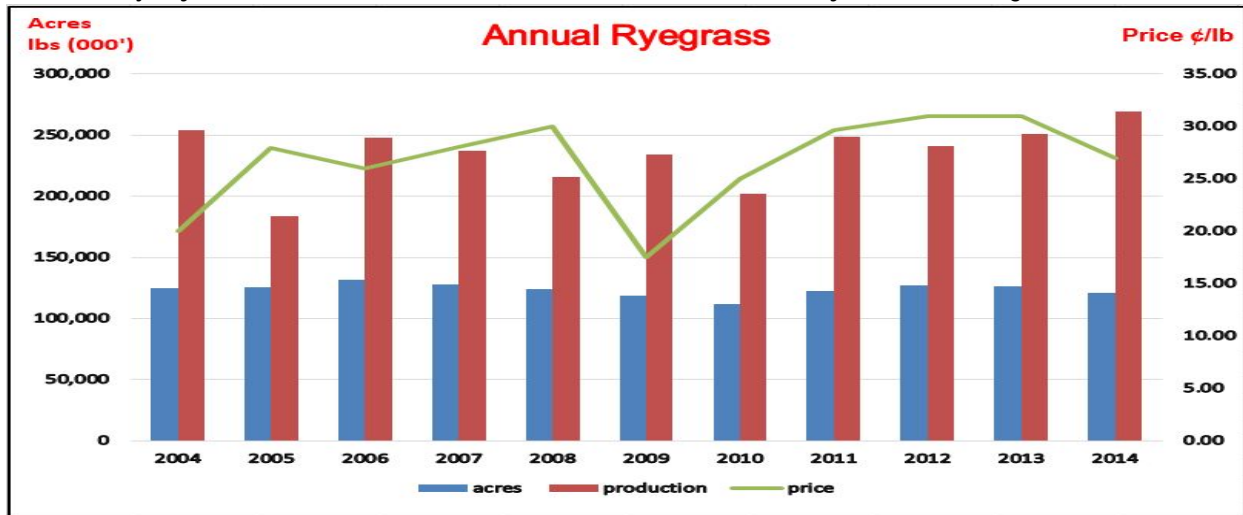
Tall Fescue Notes:

- On average, tall fescue acres the highest in Oregon, at 142,000.
- 220 million lbs. grown annually, with the average price @ 56.5 ¢/lb. 2014 average price/lb. at 68¢/lb.
- Tall fescue yields are very consistent, averaging 1,550 lbs./acre. (10 year range from low of 1483 to a high of 1,702 lbs. per acre.)
- Value wise, the highest contributor to Oregon's agricultural community, with a production value average of over \$125 million annually. 2014 = \$147 million.



Annual Ryegrass Notes:

- Acres typically remain steady, averaging 124,000 annually, with the acreage ranging between 112,000 to 132,000.
- 2014 saw acres at 120,000, 4,000 acres below the 10 year average.
- Has the highest yields of the turf grasses, with average yields at 1867 lbs./ac., producing on average a 231 million lb. crop. 2014 average yield at 2,227 lbs./ac.
- With an average price of 26.6¢/lb., annual ryegrass's value of production averages only \$61 million, well below that of tall fescue (\$125.3 million) and perennial ryegrass (\$125 million)
- Majority of acres found in the south end of the Willamette Valley in central Oregon.

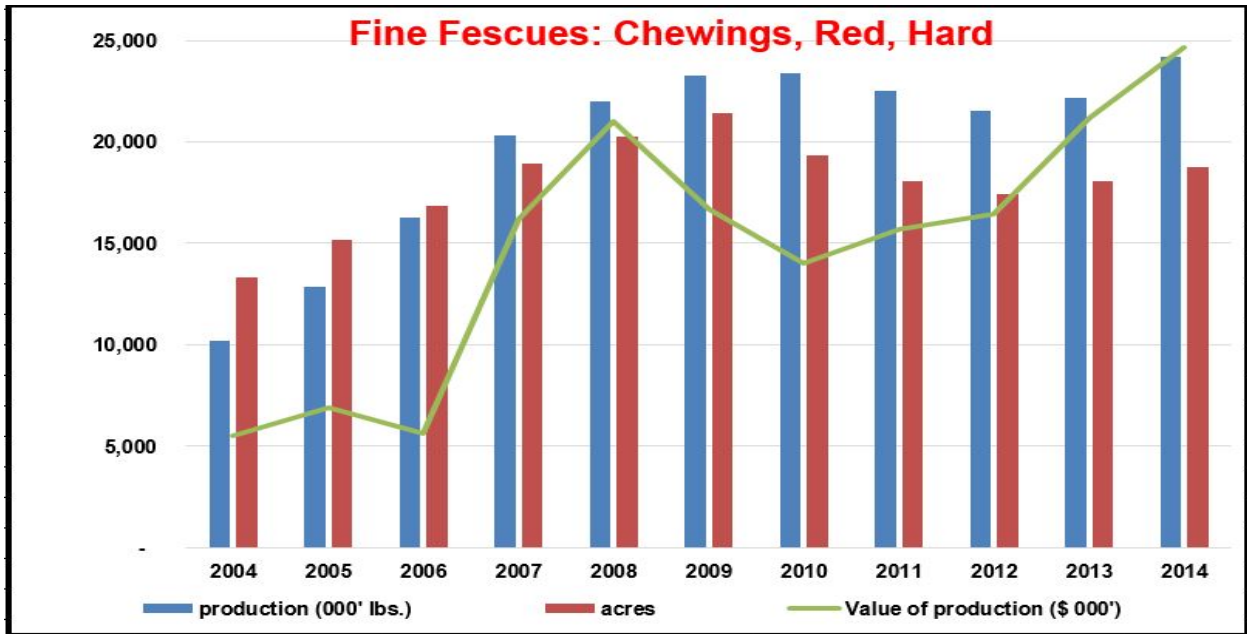


Fine Fescue: (Chewings, Red, Hard) Notes:

- Acres of the 3 main fine fescue species (chewings, red, hard) have averaged 17,900, led by chewings (8,100 ac./average), and followed by red fescue (7,600 ac./average). 2014 saw red fescue acres up 2500 over the 10 year average, showing the largest number of red fescue acres in the past 10 years. (9,045 acres)
- Annually, almost 20 million lbs. of fine fescues are grown each year. 2014 saw that total at 24.2 million lbs., with both chewings and red fescue producing 10.8 and 11.4 million lbs. respectively.
- The production of the fine fescues annually contributes over \$13.9 million to Oregon's economy.

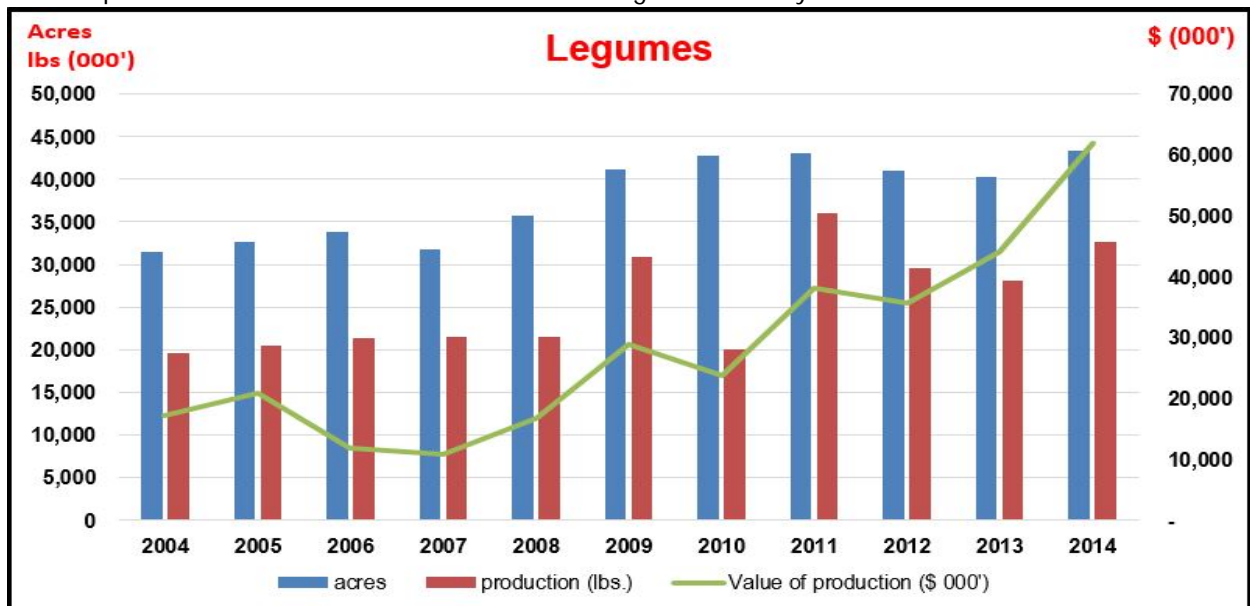


Fescue field in the Silverton Hills region, Oregon



Legumes: (Alfalfa, Clovers – Red, Crimson, White, Arrowleaf, Vetch – Common, Hairy)

- Legumes only account for 7.7% of Oregon's grass/legume seed acres, led by red clover (15,700 acres). White clover/ladino and crimson clover follower with 9,600 and 7,000 acres respectively. 2014 saw all three of these crops, along with alfalfa, above their 10 year averages.
- 32.7 million lbs. of legume seed was produced in 2014, 33% higher than the 10 year average.
- Legume seed prices received by growers in 2014 were well above long term prices. This production contributed to 61.8 million into Oregon's economy.



Charts

Oregon Grass and Legume Seed Crops Estimates (2002 - 2014): Area Harvested (acres)														
	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested	Area Harvested % From 2013 to 14 (± %)	Area Harvested 10 yr. avg (2004-13)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014			
Annual ryegrass	124,890	125,400	131,800	128,100	123,800	118,520	112,000	122,710	127,040	126,040	120,830	-4.1%	124,030	
Perennial ryegrass	177,630	192,950	170,570	161,120	122,860	107,420	91,570	93,760	105,160	104,790	112,230	7.1%	132,783	
Tall fescue	142,050	145,330	158,170	161,490	174,580	157,570	117,080	106,520	127,250	134,680	134,385	-0.2%	142,472	
Kentucky bluegrass	17,510	21,600	21,240	19,760	20,500	17,970	13,350	10,630	10,570	11,970	13,205	10.3%	16,510	
Rough bluegrass	2,590	2,420	2,260	2,300	2,200	1,910	2,050	2,200	2,060	2,100	812	-61.3%	2,209	
Orchardgrass	18,110	17,370	15,970	15,530	17,010	17,050	15,710	15,100	13,770	13,330	12,771	-4.2%	15,895	
Chewings fescue	5,380	7,090	8,250	9,310	10,180	10,155	7,660	7,080	7,570	8,270	8,086	-2.2%	8,095	
Red fescue	6,650	6,790	7,190	7,480	7,400	8,500	8,490	8,460	7,430	7,420	9,045	21.9%	7,581	
Hard fescue	1,280	1,300	1,430	2,162	2,670	2,770	3,205	2,535	2,440	2,396	1,626	-32.1%	2,219	
Colonial bentgrass	3,730	4,050	3,510	3,160	2,760	2,250	2,200	2,250	2,350	2,350	2,650	12.8%	2,861	
Creeping bentgrass	4,140	4,460	5,070	5,380	5,700	4,430	2,350	2,050	2,360	2,370	2,910	22.8%	3,831	
Wheatgrass, ALL	x	x	x	140	x	x	x	x	x	x	x	x	x	x
Total Grasses	503,960	528,760	525,460	515,932	489,660	448,545	375,665	373,295	408,000	415,716	418,550		458,499	
Alfalfa	5,680	4,870	3,880	3,240	2,950	2,300	2,420	1,450	2,370	3,130	5,184	65.6%	3,229	
Red clover	10,950	13,790	15,610	14,520	15,650	15,810	19,930	19,810	17,350	14,180	13,137	-7.4%	15,760	
Crimson clover	8,440	6,100	4,300	3,580	5,700	8,780	5,960	7,650	8,690	11,340	12,777	12.7%	7,054	
Common vetch	310	190	240	20	20	320	650	1070	660	230	531	130.9%	371	
Hairy vetch	550	250	320	430	450	590	790	1340	1170	990	1125	13.6%	688	
White clover/Ladino	4,850	6,350	8,400	9,130	10,170	12,640	12,410	11,470	10,450	10,150	10,443	2.9%	9,602	
Arrowleaf clover	652	1020	1010	885	735	640	590	253	235	235	200	-14.9%	626	
Total Legumes	31,432	32,570	33,760	31,805	35,655	41,080	42,750	43,043	40,925	40,255	43,397		37,328	
Total Grass & Legume	535,392	561,330	559,220	547,435	525,315	489,625	418,415	416,338	448,925	455,971	461,947		495,797	

Oregon Grass and Legume Seed Crops Estimates (2002 - 2014): Yield (lbs.)														
	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield per Acre	Yield Δ From 2013 to 14 (± %)	Yield/Acre 10 yr. avg (2004-13)
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014			
Annual ryegrass	2,034	1,462	1,883	1,853	1,745	1,978	1,804	2,026	1,895	1,991	2,227	11.9%	1,867	
Perennial ryegrass	1,448	1,387	1,415	1,496	1,423	1,537	1,601	1,622	1,492	1,493	1,680	12.5%	1,491	
Tall fescue	1,576	1,508	1,510	1,521	1,502	1,702	1,592	1,607	1,495	1,483	1,608	8.4%	1,550	
Kentucky bluegrass	880	867	1,065	1,112	1,275	1,055	1,232	1,330	1,288	1,238	1,377	11.2%	1,134	
Rough bluegrass	990	951	1,010	1,030	1,130	1,170	1,010	1,000	1,250	1,100	1,046	-4.9%	1,064	
Orchardgrass	881	682	913	766	957	780	837	813	754	788	836	6.1%	817	
Chewings fescue	807	930	1,215	1,181	1,199	1,196	1,268	1,363	1,359	1,360	1,337	-1.7%	1,188	
Red fescue	670	748	703	1,005	1,011	1,041	1,282	1,261	1,265	1,227	1,270	3.5%	1,021	
Hard fescue	1,086	888	815	84	867	828	874	864	763	759	1,178	55.2%	783	
Colonial bentgrass	399	433	499	452	411	346	382	416	400	400	492	23.0%	414	
Creeping bentgrass	672	547	613	640	672	700	653	806	524	653	657	0.6%	648	
Alfalfa	635	642	616	645	874	748	861	818	856	822	848	3.2%	752	
Red clover	543	545	554	626	571	682	527	903	741	756	728	-3.7%	645	
Crimson clover	784	784	831	784	973	1054	989	1067	879	775	979	26.3%	892	
Common vetch	1,000	1,000	1,000	1,000	1,000	1,000	974	1,954	1,917	2,000	1,326	-33.7%	1,285	
Hairy vetch	767	700	800	800	800	761	886	985	844	836	596	-28.7%	818	
White clover/Ladino	467	600	648	403	350	628	465	451	453	455	457	0.4%	492	
Arrowleaf clover	742	831	746	749	739	753	814	787	502	502	500	-0.4%	717	

Oregon Grass and Legume Seed Crops Preliminary Estimates (2002 - 2014): Total Production (000' lbs.)														
	Production	Production	Production	Production	Production	Production	Production	Production	Production	Production	Production	Production	from 2013 to	(000 lbs.) 10
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	14 (± %)	yr avg (2004-	
Grasses														
Annual ryegrass	254,051	183,348	248,135	237,400	215,973	234,395	201,998	248,661	240,721	250,946	269,077	7.2%	231,563	
Perennial ryegrass	257,208	267,556	241,369	241,083	174,861	165,061	146,590	152,045	156,861	156,437	188,451	20.5%	195,907	
Tall fescue	223,803	219,158	238,783	245,587	262,237	268,223	186,363	171,195	190,247	199,720	216,149	8.2%	220,532	
Kentucky bluegrass	15,410	18,718	22,623	21,969	26,132	18,967	16,445	14,141	13,609	14,818	18,181	22.7%	18,283	
Rough bluegrass	2,565	2,302	2,283	2,369	2,486	2,235	2,071	2,200	2,575	2,310	849	63.2%	2,340	
Orchardgrass	15,954	11,838	14,579	11,897	16,277	13,291	13,143	12,281	10,382	10,504	10,677	1.6%	13,015	
Chewings fescue	4,344	6,594	10,025	10,997	12,202	12,149	9,713	9,649	10,290	11,250	10,811	-3.9%	9,721	
Red fescue	4,454	5,082	5,057	7,521	7,485	8,846	10,885	10,665	9,399	9,105	11,484	26.1%	7,850	
Hard fescue	1,390	1,154	1,166	1,817	2,314	2,293	2,802	2,190	1,861	1,818	1,916	5.4%	1,881	
Colonial bentgrass	1,490	1,753	1,753	1,428	1,135	779	841	936	940	940	1,304	38.7%	1,200	
Creeping bentgrass	2,783	2,440	3,109	3,443	3,829	3,101	1,534	1,652	1,237	1,679	1,912	13.9%	2,481	
Total Grasses	783,452	719,943	788,882	785,511	724,931	729,340	592,385	625,615	638,122	659,527	730,811	10.8%	704,771	
Legumes														
Alfalfa	3,605	3,125	2,392	2,090	2,578	1,720	2,083	1,186	2,028	2,573	4,395	70.8%	2,338	
Red clover	5,944	7,509	8,644	9,088	8,938	10,776	10,505	17,883	12,857	10,726	9,564	-10.8%	10,287	
Crimson clover	6,613	4,785	3,575	2,806	5,545	9,257	5,896	8,160	7,635	8,786	12,509	42.4%	6,306	
Common vetch	310	190	240	20	20	320	633	2091	1265	460	704	53.0%	555	
Hairy vetch	422	175	256	344	344	449	700	1320	988	828	670	-19.1%	583	
White clover/Ladino	2,266	3,810	5,441	3,677	3,561	7,941	5,771	5,174	4,733	4,618	4,768	3.2%	4,699	
Arrowleaf clover	848	60.43	50.00	663	543	482	480	199	118	118	100	-15.3%	356	
Total Legumes	19,644	20,442	21,301	21,529	21,529	30,945	20,068	36,013	29,624	28,109	32,710	16.4%	24,920	
Total Grass & Legume	803,096	740,385	810,183	814,092	746,460	760,285	618,453	661,628	667,746	687,636	763,521	11.0%	730,996	

Oregon Grass and Legume Seed Crops Estimates (2002 - 2014): Prices (\$ / cwt)														
	Price	Price	Price	Price	Price	Price	Price	Price	Price	Price	Price	Price	Price Δ	Price: 10
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		from 2013	yr avg
Grasses														
Annual ryegrass	20.00	27.98	25.99	28.00	30.01	17.47	25.00	29.60	31.01	31.00	27.00		-12.9%	26.61
Perennial ryegrass	59.78	54.76	69.22	66.59	75.62	49.67	49.50	59.65	70.82	85.19	84.00		-1.4%	64.08
Tall fescue	38.86	49.83	68.29	75.01	67.07	40.04	31.52	49.64	71.23	73.88	68.00		-8.0%	56.54
Kentucky bluegrass	80.15	77.87	90.91	97.01	111.46	104.69	96.37	107.60	110.31	116.00	126.00		8.6%	99.24
Rough bluegrass	114.00	114.15	113.00	112.00	112.00	120.00	149.00	149.00	149.00	130.00	198.00		52.3%	126.22
Orchardgrass	52.94	69.98	92.88	139.99	184.73	72.04	58.10	68.77	82.60	100.00	112.00		12.0%	92.20
Chewings fescue	56.03	58.56	74.28	83.37	94.32	73.99	54.59	65.40	72.38	94.72	100.00		5.6%	72.76
Red fescue	51.62	45.96	62.93	72.23	91.70	65.36	56.76	67.67	74.97	94.93	103.00		8.5%	68.41
Hard fescue	56.63	60.64	87.09	87.34	112.94	83.45	90.77	99.48	104.44	104.92	104.00		-0.9%	88.77
Colonial bentgrass	122.00	115.00	115.00	117.37	165.01	175.00	173.15	180.00	200.00	202.13	270.00		33.6%	156.47
Creeping bentgrass	301.31	302.24	300.39	300.35	300.00	286.98	300.00	300.00	298.06	310.69	334.00		7.5%	300.00
Legumes														
Alfalfa	115.24	121.88	131.56	147.90	198.81	199.54	198.26	192.08	231.36	235.28	272.00		15.6%	177.19
Red clover	99.66	100.87	106.94	120.03	181.62	86.73	81.04	109.90	101.43	135.30	187.00		38.2%	112.35
Crimson clover	42.44	49.77	64.70	101.34	114.79	35.00	43.00	62.00	98.26	130.79	160.00		22.3%	74.21
Common vetch	30.00	75.00	75.00	75.00	75.00	80.00	40.00	40.00	40.00	40.00	53.00		32.5%	57.00
Hairy vetch	70.00	75.00	90.00	95.00	95.00	80.00	105.00	105.00	110.00	110.00	125.00		13.6%	93.50
White clover/Ladino	139.88	170.00	134.81	156.00	225.00	150.00	122.82	169.61	184.77	234.41	225.00		-4.0%	168.73
Arrowleaf clover	70.00	87.92	84.29	89.46	91.55	83.44	94.38	92.09	70.00	75.76	70.00		-7.6%	83.89

Oregon Grass and Legume Seed Crops Estimates (2002 - 2014): Value of Production (000 \$)													
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	% from 2013 to 14 (± %)	10 yr avg
Annual ryegrass	50,810	51,309	64,501	66,472	64,408	40,946	50,510	73,609	74,640	77,789	72,651	-6.6%	61,499
Perennial ryegrass	153,767	146,510	167,083	160,540	132,230	81,984	72,569	90,690	111,088	133,264	158,299	18.8%	124,973
Tall fescue	86,960	109,199	163,054	184,225	175,833	107,409	58,734	84,976	135,518	147,553	146,981	-0.4%	125,346
Kentucky bluegrass	12,351	14,575	20,567	21,311	29,127	19,857	15,848	15,216	15,012	17,190	22,908	33.3%	18,105
Rough bluegrass	2,924	2,628	2,580	2,653	2,784	2,682	3,086	3,278	3,837	3,003	1,681	-44.0%	2,946
Orchardgrass	8,447	8,284	13,541	16,654	30,058	9,575	7,636	8,446	8,575	10,504	11,958	13.8%	12,172
Chewings fescue	2,434	3,861	1,446	9,168	11,509	8,989	5,302	6,310	7,448	10,656	10,811	1.5%	6,712
Red fescue	2,299	2,336	3,182	5,432	6,864	5,781	6,178	7,217	7,046	8,644	11,829	36.8%	5,498
Hard fescue	787	700	1,015	1,587	2,613	1,914	2,543	2,179	1,944	1,907	1,993	4.5%	1,719
Colonial bentgrass	1,818	2,016	2,016	1,676	1,873	1,363	1,456	1,685	1,800	1,900	3,521	85.3%	1,760
Creeping bentgrass	8,386	7,375	9,339	10,341	11,487	8,899	4,602	4,956	3,687	5,216	6,386	22.4%	7,429
Total Grasses	330,983	348,793	448,324	261,200	278,100	289,399	228,464	298,562	370,595	417,626	449,018	7.5%	327,205
Alfalfa	4,154	3,809	3,147	3,091	5,074	3,432	4,130	2,278	4,692	6,054	11,954	97.5%	3,986
Red clover	5,924	7,574	9,244	10,908	16,233	9,346	8,513	19,653	13,041	14,513	17,885	23.2%	11,495
Crimson clover	2,807	2,381	2,313	2,844	6,365	3,240	2,535	5,059	7,502	11,491	20,014	74.2%	4,654
Common vetch	93	143	180	15	15	256	253	836	506	184	373	102.7%	248
Hairy vetch	295	131	230	327	327	359	735	1,386	1,087	911	838	-8.0%	579
White clover/Ladino	3,170	6,477	7,335	5,736	8,012	11,912	7,088	8,776	8,745	10,825	10,728	-0.9%	7,808
Arrowleaf clover	635	401	313	593	497	402	453	183	83	89	70	-21.3%	365
Total Legumes	17,078	20,916	11,928	10,797	16,780	28,947	23,707	38,171	35,656	44,067	61,862	40.4%	24,805
Total Grass & Legume	348,061	369,709	460,252	273,128	288,897	318,346	252,171	336,723	406,251	461,693	510,880	10.7%	351,523

Summary:

The importance of Oregon's contribution to the world grass and legume seed sector cannot be stressed enough. Not only is it the world's leader in production, it also leads in research, technology and in setting the direction the marketplace takes, especially turf seed markets.



The data presented in this article is a collaboration between government personnel, industry reps and grower groups, under the direction of Dr. Bill Young, Oregon State University. This data is available at:

<http://cropandsoil.oregonstate.edu/content/oregon-grass-and-legume-seed-production>

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