

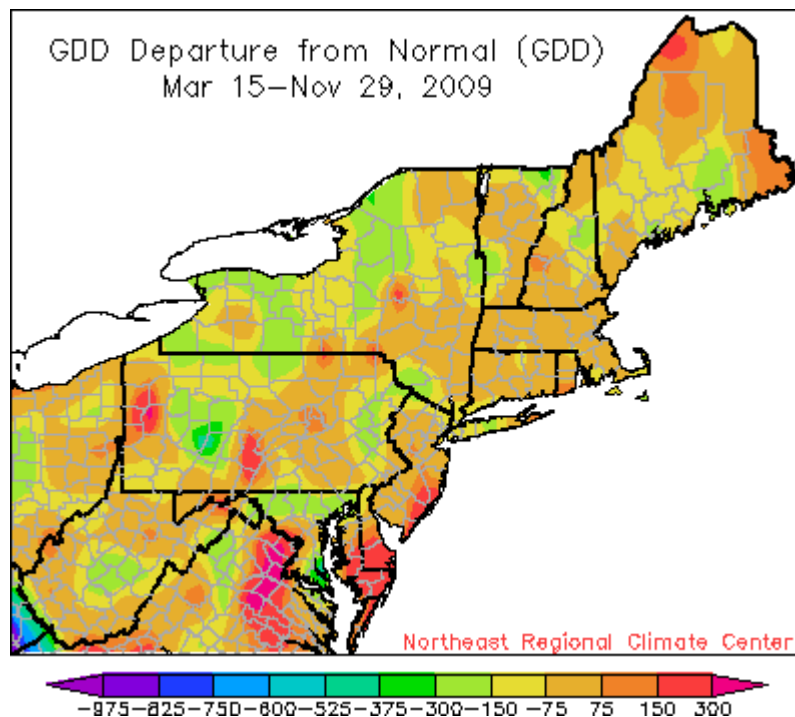
# NEW YORK FORAGE LEGUME AND GRASS VARIETY YIELD TRIALS SUMMARY FOR 2009 – SEASON TOTALS



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<http://plbrgen.cals.cornell.edu/cals/pbg/programs/departamental/forage/foragetest.cfm>

## 2009 NYS Base 50 Growing Degree Day

[http://www.nrcc.cornell.edu/grass/degreedays/dd\\_complong.html](http://www.nrcc.cornell.edu/grass/degreedays/dd_complong.html)



Forage yield trials are planted and harvested annually at Cornell University. Funding for these trials is provided by the companies that submit the varieties/ cultivars in the trials, from Cornell University College of Agriculture and Life Sciences, and from Northern New York

Agricultural Development Program. Trials of perennial forages are managed for four years; seeding year and three production years.

**2009 Growing Season (Figures 1 and 2, page 12)**  
For the state, the spring temperatures were 1.3 degrees above normal and precipitation was 0.7

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inches below normal. The summer temperatures were 0.9 degrees below normal and precipitation was 2.35 inches above normal. Particularly notable were the cool temperatures in July (2009 had the fourth coolest July in the last 115 years). September and October were both below average for temperature. September had 60% of the normal precipitation and October had 121% of the normal precipitation.

Alfalfa yields for 2009 averaged 6.2 tons per acre dry matter (0.2 tons less than in 2008), red clover yields averaged 4.6 tons per acre dry matter (same as in 2008), and perennial forage grass yields averaged 6.3 tons per acre dry matter (1.3 tons per acre more than in 2008).

### **Cultivar/Variety Selection**

Plant breeders continue to develop new and improved cultivars. Cultivars are continually released and were selected for improved agronomic characteristics such as yield, disease and insect resistance, forage quality, etc. Seed cost of improved cultivars can be higher than for other cultivars, but this cost is generally offset when there is improved performance at each harvest over the life of the stand.

In each New York trial, there is a group of top-yielding cultivars. Cultivar performance should be critically evaluated by comparing yield with other cultivars in two or more trials that are in the second or later year of production.

**Alfalfa (Tables 1 and 2)** cultivars for New York are recommended to have resistance (R) or high resistance (HR) to four diseases (bacterial wilt, Verticillium wilt, anthracnose, Phytophthora root rot) and fall dormancy rating should be 2, 3, or 4. Cultivars with higher fall dormancy ratings will go dormant later in the fall. Cultivars that have fall dormancy ratings higher than 4 may have unacceptable winter-hardiness for New York, particularly in Northern New York. All of the production year alfalfa trials were harvested three times between late May and mid-September.

A limited number of potato leafhopper (PLH) resistant alfalfa cultivars are available for producers to plant. These cultivars are tested in trials that are not sprayed with insecticide (page 5).

**Red Clover (Table 3)** is generally a two-production year crop in New York and is an excellent forage legume for short-rotation fields and for frost-seeding into established stands. The third production year red clover trial winter-killed and was not harvest in 2009

**Birdsfoot Trefoil (Table 3)** is a legume that tolerates soils that alfalfa will not be productive on. Birdsfoot trefoil should always be planted in combination with other forages like perennial grasses. Also, birdsfoot trefoil does not tolerate low cutting heights, so it is advisable to leave 5+ inches of stubble in the field.

**Grass yield (Tables 4, 5, and 6)** trials were fertilized with 200 lb/A ammonium nitrate in early April and after first, second, and third harvests. Forage grass trials are harvested four times between May 20<sup>th</sup> and October 20<sup>th</sup>. Bromegrass does not tolerate intensive management thus is harvested three times each growing season. Grass yields by species for production year trials harvested 2009 are listed in summary **Table 4, page 8-9**.

Also listed is a visual estimate of percent stand and heading date. Heading date is the calendar date when about 5 heads per plot were visible. Use percent stand, heading date, and yield to select grass varieties that fit your forage program.

Grass forage quality estimates from 2008 for the trials planted in 2006 and 2007 are presented in **Tables 5 and 6**. Grass forage quality samples are taken at the first growth only, not at the other three harvests. When grass plants produce seed heads, the seed head stems lower forage quality. Samples from each cultivar are taken on two days – two samples at harvest time (May 20 to May 27 in 2009) and two samples at heading date (May 7 to June 12 in 2009). Forage quality estimates from 2009 for trials planted in 2007 and 2008 will be available late winter.

**Table 7** is a summary of grasses planted and harvested in 2009.

We express appreciation to all of our cooperators in allowing us to plant field plot trials of forages on their farms and to our employees for their hard work in harvesting and maintaining field plots.

**Table 1: New York Alfalfa Cultivar Yield Trial Results - 2009 Forage Yields**

T/A = tons per acre dry matter; 5%LSD = to claim statistically significant yield differences between two cultivars, the yield difference must be equal to or greater than the LSD. CV = A statistical representation of the precision of a trial. Lower is better.

Summary of Alfalfa Cultivar Performance 2007 - 2009				Ithaca, Tompkins County, Sown April 27, 2006			
Cultivar	Yielded in the Top 50% of the Trial(s)*			Cultivar	2009	3-Yr.	
	Avg. % of Cks	No. of harvests	Total No. of harvests		Total Season	Total	% of Cks.
ReGen	111	39	39	Lightning EXTRA	7.43	20.95	113
WL 343 HQ	112	32	36	ReGen	6.96	20.89	113
Lightning EXTRA	113	20	20	WL 343 HQ	7.26	20.83	113
4A421	113	20	20	4A421	7.12	20.76	112
54V46	110	20	20	4G418RR	7.20	20.46	111
DKA34-17RR	109	20	20	DKA34-17RR	7.21	20.44	111
Radiant-AM	109	20	20	54V46	6.84	20.30	110
4G418RR	109	20	20	Starbuck	6.83	20.19	109
Starbuck	109	20	20	Radiant-AM	7.00	20.18	109
Mariner III	108	20	20	Mariner III	6.79	20.05	109
55V48	112	19	19	WL 355 RR	6.99	19.99	108
Guardzman II	109	19	39	Guardzman II	6.67	19.88	108
AmeriStand 407TQ	109	19	19	Kingfisher 30-30 Q	6.83	19.73	107
Marvel	110	14	14	DKA41-18RR	6.88	19.63	106
A 5225	107	13	13	A4440	6.62	19.40	105
WL 355 RR	108	11	20	Oneida VR (check)	6.58	19.27	104
FSG 406	109	7	13	5312 (check)	6.09	18.98	103
Keystone	109	7	13	Seedway 9558	5.89	18.58	101
PGI 459	107	7	13	Vernal (check)	5.37	17.15	93
6415	107	7	13				Ck. Mean
L 447 HD	114	6	6	Trial Mean (T/A)	6.71	19.78	18.47
6417	110	6	6	5% LSD	0.43	0.93	
Lander	106	6	13	CV(%)	5.0	3.7	
FSG 351	105	6	13				
DKA43-13	116	3	6				
Genoa	109	3	3				
WL 363HQ	106	3	6				

Cobleskill, Schoharie County, Sown May 2, 2006			
Cultivar	2009	3-Yr	
	Total	Total Season	% of Cks.
	- tons per acre dry matter -		
4A421	7.92	24.45	113
Lightning EXTRA	8.16	24.43	113
Marvel	7.79	23.92	111
54V46	7.80	23.74	110
Radiant-AM	7.67	23.67	109
ReGen	7.49	23.65	109
Starbuck	7.44	23.54	109
DKA34-17RR	7.83	23.38	108
Mariner III	7.38	23.38	108
WL 355 RR	7.66	23.36	108
4G418RR	7.84	23.26	108
WL 343 HQ	7.87	23.21	107
Escalade	7.64	22.99	106
DKA41-18RR	7.38	22.82	105
Guardzman II	7.03	22.79	105
5312 (check)	7.36	22.78	105
Kingfisher 30-30 Q	7.16	22.60	104
A4440	7.33	22.36	103
Oneida VR (check)	7.30	22.11	102
Integrity	6.98	22.11	102
Seedway 9558	6.57	21.60	100
Vernal (check)	6.37	20.01	93
			Ck. Mean
Trial Mean (T/A)	7.34	22.81	21.63
5% LSD	0.38	0.73	
CV(%)	4.5	2.8	

Trial, Seeding Year	Soil series, elevation, # of harvests in 2008
Ithaca, 2006, Page 3	Williamson silt loam, 1000 ft., 3 har.
Cobleskill, 2006 Pg.3	Barbour Tioga fine sandy loam, 1170 ft., 3 har.
Ithaca, 2007, Page 4	Williamson silt loam, 1000 ft., 3 har.
Warsaw, 2007, Page 4	Bath-Valois gravelly loam, 1700 ft., 4 harvests
Ithaca, 2008, Page 4	Williamson silt loam, 1000 ft., 3 har.
Chazy, 2008, Page 4	Raynham variant silt loam, 185 ft., 3 harvests
Ithaca, 2009, Page 5	Madalin silt loam, 990 ft, 0 harvests
Cobleskill, 2009 Pg.5	Barbour Tioga fine sandy loam, 1170 ft., 0 har.

**Many Thanks to our Cooperators:**

Drew Lewis	Cornell University Director of Operations
Tim Dodge	Cornell University Farm Manager
Thomas Edwards	Cornell Univ. Field Technician
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Table 1 (con't): NY Alfalfa Cultivar Yield Trial Results - 2009 Forage Yields

Ithaca, Tompkins County, Sown May 4, 2007				Warsaw, Wyoming County, Sown May 3, 2007			
Cultivars	2-Yr			Cultivars	2-Yr		
	2009 Total	Total Season	% of Cks.		2009 Total	Total Season	% of Cks.
	- tons per acre dry matter -				- tons per acre dry matter -		
ReGen	6.35	13.39	109	55V48	8.19	17.36	113
Guardzman II	6.18	13.15	107	FSG 406	7.91	16.79	109
55V48	6.44	13.11	107	Keystone	7.98	16.74	109
A 5225	6.44	13.02	106	ReGen	7.75	16.53	108
Lander	6.13	12.98	106	PGI 459	8.02	16.49	107
FSG 351	6.00	12.84	105	A 5225	7.76	16.47	107
5312 (check)	5.89	12.81	104	AmeriStand 407TQ	7.83	16.45	107
AmeriStand 407TQ	6.28	12.77	104	Guardzman II	7.74	16.44	107
Keystone	6.11	12.67	103	6415	7.86	16.44	107
PGI 459	6.34	12.66	103	FSG 351	7.61	16.26	106
WL 343HQ	6.22	12.64	103	5312 (check)	7.28	15.93	104
FSG 406	6.01	12.57	103	WL 343HQ	7.67	15.90	104
6415	6.14	12.48	102	Oneida VR (check)	7.15	15.58	102
Vernal (check)	5.59	12.12	99	Lander	7.33	15.58	102
Oneida VR (check)	5.50	11.84	97	Seedway 9558	7.20	15.45	101
				Vernal (check)	6.72	14.54	95
			Ck. Mean				Ck. Mean
Trial Mean (T/A)	6.05	12.55	12.26	Trial Mean (T/A)	7.05	15.94	15.35
5% LSD	0.33	0.62		5% LSD	0.32	0.54	
CV(%)	4.4	3.9		CV(%)	3.7	2.9	

## Ithaca, Tompkins County, Sown May 7, 2008

Cultivars	2009	
	Total	% of Cks.
	T/A	
ReGen	5.42	112
L 447 HD	5.37	111
AmeriStand 407TQ	5.31	110
55V48	5.27	109
Genoa	5.24	109
Marvel	5.23	108
Guardzman II	5.21	108
6417	5.15	107
WL 363HQ	5.12	106
Rebound 5.0	5.11	106
Escalade	5.11	106
DKA43-13	5.10	106
Seedway 9558	5.03	104
L 333 HD	4.92	102
Oneida VR (check)	4.92	102
5312 (check)	4.92	102
Vernal (check)	4.63	96
		Ck. Mean
Trial Mean (T/A)	5.20	4.82
5% LSD	0.28	
CV(%)	4.3	

## Chazy, Clinton County, Sown May 9, 2008

Cultivars	2009	
	Total	% of Cks.
	T/A	
55V48	5.47	118
L 447 HD	5.39	117
WL 343HQ	5.38	117
DKA43-13	5.38	116
AmeriStand 407TQ	5.26	114
Guardzman II	5.24	113
ReGen	5.20	113
6417	5.19	112
Rebound 5.0	5.09	110
WL 363HQ	4.98	108
Oneida VR (check)	4.98	108
Seedway 9558	4.96	107
L 333 HD	4.93	107
5312 (check)	4.54	98
Vernal (check)	4.35	94
		Ck. Mean
Trial Mean (T/A)	4.96	4.62
5% LSD	0.57	
CV(%)	8.2	

**Table 1 (con't): NY Alfalfa Cultivar Yield Trials - 2009**  
**2009 Trials - Cultivars Planted**

<b>Ithaca NY Trial</b>	<b>Cobleskill NY Trial</b>	<b>On-Line Resources for Forage Management and Variety Selection:</b>
4S417	4S417	
5312 (check)	5312 (check)	
55V48	55V48	Find this report and others at:
AmeriStand 403T Plus	AmeriStand 403T Plus	<a href="http://plbrgen.cals.cornell.edu/cals/pbg/programs/departmental/forage/foragetest.cfm">http://plbrgen.cals.cornell.edu/cals/pbg/programs/departmental/forage/foragetest.cfm</a>
Ameristand 407TQ	Ameristand 407TQ	
FSG 329	DKA43-13	Forage Crop Management, Dr. Jerry Cherney:
FSG 408DP	FSG 329	<a href="http://www.forages.org/">http://www.forages.org/</a>
Guardsman II	FSG 408DP	
HybriForce-2400	FSG 420 LH	2009 Cornell Guide for Integrated Field Crop Management:
L333 HD	Guardsman II	to order hardcopy by phone call: 607-255-7282
Radiance HD	HybriForce-2400	to view on-line: <a href="http://ipmguidelines.org/fieldcrops/">http://ipmguidelines.org/fieldcrops/</a>
msSunstra-807	LegenDairy 5.0	
Oneida VR (check)	msSunstra-807	Alfalfa Variety Comparison:
Prolific II	Oneida VR	<a href="http://www.uwex.edu/ces/ag/alfalfa/index.cfm">http://www.uwex.edu/ces/ag/alfalfa/index.cfm</a>
Rebound 5.0	Pounce	
ReGen	Prolific II	New York State Integrated Pest Management Program
Syngenta 64Q22	Rebound 5.0	<a href="http://nysipm.cornell.edu/fieldcrops/default.asp">http://nysipm.cornell.edu/fieldcrops/default.asp</a>
Vernal (check)	ReGen	
	Syngenta 64Q22	North American Alfalfa Improvement Conference:
	Vernal	<a href="http://www.naaic.org/">http://www.naaic.org/</a>
	WL 343 HQ	
	WL 363 HQ	

### 2009 Alfalfa Trials to Test Insect Resistant Cultivars

Trials harvested 3 times per year; 2006 trial on Bath and Valois gravelly silt loam, 2007 trial on Hudson silty clay, 2008 trial on Eel Silt Loam,

2009 trial on Langford channery silt loam. PLH populations were at low levels in 2009.

Oneida VR, 5312, and Vernal are alfalfa cultivars with no resistance to potato leafhopper. These cultivars are the check cultivars in each trial.

\*PLH Damage Score - 1=minor to no damage; 5=severe damage

Sown May 1, 2006	2009		3-Yr		3-Yr	Sown May 6, 2008	2008**		
	Total Season	% of Cks.	Total Season	% of Cks.	Avg. PLH Damage		Total Season	% of Checks	PLH Damage
Cultivar						Cultivar			
	T/A		T/A				T/A		
WL 345LH	5.11	100	12.90	102	1.7	53H92	1.94	104	1.5
Enforcer	5.07	100	12.89	102	1.4	AmeriStand 404LH	1.91	102	1.8
WL 347LH	5.05	99	12.87	101	1.7	5312 (check)	1.88	101	2.8
5312 (check)	5.10	100	12.78	101	3.3	Vernal (check)	1.88	101	3.3
Vernal (check)	5.04	102	12.77	101	3.3	Oneida VR (check)	1.85	99	3.7
Oneida VR (check)	4.96	97	12.51	99	4.0	6426	1.77	95	1.8
53H92	4.88	96	11.77	93	1.1	EverGreen 3	1.63	87	1.8
		Ck.Mean		Ck.Mean				Ck. Mean	
Trial Mean (T/A)	5.12	5.09	12.96	12.69		Trial Mean (T/A)	1.85	1.87	
5% LSD	0.42		0.99			LSD(.05)	0.26		
CV(%)	7.0		6.6			CV(%)	12.1		

Sown May 9, 2007	2009		2-Yr		3-Yr	Sown May 12, 2009	2009		
	Total Season	% of Cks.	Total	% of Cks	Avg. PLH Damage		Total Season	% of Checks	PLH Damage
Cultivar						Cultivar			
	T/A		T/A				T/A		
FSG 400LH	5.97	105	10.60	105	1.9	53H92	1.50	114	1.4
5312 (check)	5.87	103	10.48	104	2.8	5312 (check)	1.36	103	4.0
Vernal (check)	5.75	101	10.07	100	3.2	Pounce	1.34	102	3.5
EverGreen 3	5.77	101	10.01	99	1.5	Oneida VR (check)	1.31	99	5.0
53H92	5.62	99	10.00	99	1.2	Vernal (check)	1.29	98	5.0
Oneida VR (check)	5.44	96	9.79	97	3.3	FG44H375	1.27	96	1.0
4P424	5.44	96	9.51	94	1.2	FSG 420 LH	1.27	96	1.3
		Ck.Mean		Ck.Mean				Ck. Mean	
Trial Mean (T/A)	5.58	5.69	9.97	10.11		Trial Mean (T/A)	1.40	1.32	
5% LSD	0.56		0.94			LSD(.05)	0.11		
CV(%)	8.6		8.2			CV(%)	7.1		

\*\*Trial sown in 2008 was harvested in 2009, but yield data was variable due to feeding by woodchucks and thus not reported.

**Table 2: Alfalfa Cultivar Features**

For more information log on to the Web:

<http://plbrgen.cals.cornell.edu/cals/pbg/programs/departmental/forage/foragetest.cfm>

Cultivars listed are currently tested in Cornell Alfalfa Trials. Yield data for cultivars in new trial seedings will be available next year.

Alfalfa Cultivar	Marketing Company	FD	Disease Resistance Ratings*					Marketing Co.	
			BW	VW	FW	AN	PRR	Phone Number	Web or E-mail Address
Lander	Allied Seeds LLC	4		R	LR	MR	MR	1-888-305-0500	<a href="http://www.alliedseed.com">www.alliedseed.com</a>
AmeriStand 404LH	America's Alfalfa	4	HR	HR	HR	HR	HR	1-800-873-2532	<a href="http://www.americasalfalfa.com/">http://www.americasalfalfa.com/</a>
AmeriStand 403T Plus	America's Alfalfa	4	HR	HR	HR	HR	HR		
AmeriStand 407TQ	America's Alfalfa	4	HR	HR	HR	HR	HR		
Radiance HD	AMPAC Seed Company	4	HR	R	HR	HR	HR	1-800-547-3230	<a href="http://www.ampacseed.com">www.ampacseed.com</a>
Radiant - AM	AMPAC Seed Company	4	HR	HR	HR	HR	HR		
Keystone	Chemgro Seeds	3	HR	HR	HR	HR	HR	1-800-346-4769	<a href="http://www.chemgro.com">www.chemgro.com</a>
LegenDairy 5.0	CROPLAN GENETICS	3	HR	HR	HR	HR	HR	1-651-765-5710	<a href="http://www.croplangenetics.com">www.croplangenetics.com</a>
Rebound 5.0	CROPLAN GENETICS	4	HR	HR	HR	HR	HR		
HybriForce-2400	Dairyland Seed Co.	4	HR	HR	HR	HR	HR	1-262-626-3080	<a href="http://www.dairylandseed.com">http://www.dairylandseed.com</a>
msSunstra-807	Dairyland Seed Co.	4	HR	HR	HR	HR	HR		
Pounce	Doebler's	3	HR	HR	HR	HR	HR	1-800-853-2676	<a href="http://www.doeblers.com">www.doeblers.com</a>
Prolific II	Doebler's	4	HR	HR	HR	HR	HR		
Enforcer	GROWMARK FS	4	HR	HR	HR	HR	HR	1-800-338-4769	<a href="http://www.fsseeds.com">www.fsseeds.com</a>
Escalade	GROWMARK FS	5	HR	R	R	R	HR		
Mariner III	GROWMARK FS	4	HR	R	HR	HR	HR		
Marvel	GROWMARK FS	4	HR	HR	HR	HR	HR		
6415	Garst Seed Co.	4	HR	HR	HR	HR	HR	1-888-464-2778	<a href="http://www.garstseed.com">www.garstseed.com</a>
6417	Garst Seed Co.	4	HR	HR	HR	HR	HR		
6426	Garst Seed Co.	4	HR	HR	HR	HR	HR		
Kingfisher 30-30Q	King's Agri-Seed	3	HR	HR	HR	HR	HR	1-717-687-6224	
L 333HD	Legacy Seeds	3	HR	HR	HR	HR	HR	1-866-791-6390	<a href="http://www.legacyseeds.com">www.legacyseeds.com</a>
L 447HD	Legacy Seeds	4	HR	R	HR	HR	HR		
DKA34-17RR	Monsanto	3	HR	HR	HR	HR	HR	1-800-335-2676	<a href="http://www.monsanto.com">www.monsanto.com</a>
DKA41-18RR	Monsanto	4	HR	HR	HR	HR	HR		
DKA43-13	Monsanto	4	HR	HR	HR	HR	HR		
4A421	Mycogen Seeds	4	HR	HR	HR	HR	HR	1-800-MYCOGEN	<a href="http://www.dowagro.com/mycogen">www.dowagro.com/mycogen</a>
4G418RR	Mycogen Seeds	4	HR	HR	HR	HR	HR		
4P424	Mycogen Seeds	4	HR	HR	HR	HR	HR		
4S417	Mycogen Seeds	4	HR	HR	HR	HR	HR		
EverGreen 3	NK Brand Seeds	4	HR	HR	HR	HR	HR	1-800-445-0956	<a href="http://www.nk-us.com">www.nk-us.com</a>
Genoa	NK Brand Seeds	4	HR	HR	HR	HR	HR		
Syngenta 64Q22	Syngenta	4	HR	HR	HR	HR	HR		
53H92	Pioneer Hi-Bred	3	HR	R	HR	HR	HR	1-800-247-6803	<a href="http://www.pioneer.com">www.pioneer.com</a>
54V46	Pioneer Hi-Bred	4	R	HR	HR	HR	HR		
55V48	Pioneer Hi-Bred	5	HR	R	HR	HR	HR		
Lightning EXTRA	Preferred Seed Co.	4	HR	HR	HR	HR	HR	1-716-895-7333	<a href="http://www.preferredseed.com">www.preferredseed.com</a>
A4440	Producer's Choice	4	HR	HR	HR	HR	HR	1-866-744-5710	<a href="http://www.producerschoiceseed.com">www.producerschoiceseed.com</a>
A5225	Producer's Choice	5	HR	HR	HR	HR	HR		
Integrity	Producer's Choice	4	HR	HR	HR	HR	HR		
PGI 459	Producer's Choice	4	HR	HR	HR	HR	HR		
Guardsman II	Seedway/FSG	4	HR	HR	HR	HR	HR	1-800-836-3710	<a href="http://www.seedway.com">www.seedway.com</a>
ReGen	Seedway/FSG	3	R	HR	HR	HR	R		
Seedway 9558	Seedway/FSG	3	HR	HR	HR	HR	R		
FSG 329	Seedway/FSG	3	HR	HR	HR	HR	HR		
FSG 351	Seedway/FSG	3	HR	R	HR	HR	HR		
FSG 400 LH	Seedway/FSG	4	HR	HR	HR	HR	HR		
FSG 406	Seedway/FSG	4	HR	HR	HR	HR	HR		
FSG 408 DP	Seedway/FSG	4	HR	R	HR	HR	HR		
FSG 420 LH	Seedway/FSG	4	HR	HR	HR	HR	HR		
Starbuck	T.A. Seeds	4	HR	R	HR	HR	HR	1-866-813-7333	<a href="http://www.taseeds.com">www.taseeds.com</a>
WL 343HQ	Crop Production Services, HYTEST, AgriCulv	4	HR	HR	HR	HR	HR	1-717-917-1609	<a href="http://www.wlresearch.com">www.wlresearch.com</a>
WL 345LH	AgriCulver Seeds	4	HR	HR	HR	HR	HR	1-800-836-3701	<a href="http://www.agriculverseeds.com">www.agriculverseeds.com</a>
WL 347LH	Crop Production Services, HYTEST	4	HR	HR	HR	HR	HR	1-585-586-1330	<a href="http://www.cropproductionservices.com">www.cropproductionservices.com</a>
WL 355RR	Crop Production Services, HYTEST, AgriCulv	4	HR	HR	HR	HR	HR		<a href="mailto:info@wlresearch.com">info@wlresearch.com</a>
WL 363HQ	Crop Production Services, HYTEST, AgriCulv	5	HR	HR	HR	HR	HR		
5312	check	3	HR	HR	HR	HR	HR		
Oneida VR	check	3	R	HR	HR	MR	MR		
Vernal	check	2	R	-	MR	-	-		

\*Disease ratings were provided by source companies, and from standard national tests.

Disease ratings code: HR = High resistance ( 50% or more of the plants resistant), R= Resistance (31-50% resistant), MR = Moderate resistance

FD = fall dormancy. Fall Dormancy ratings of 2,3 or 4 are recommended for New York State.

Cultivars rated R or HR to BW, VW, and Prr should have sufficient disease resistances to perform well in New York State.

\*BW - bacterial wilt, VW-Verticillium wilt, FW-Fusarium wilt, An-Anthraxnose, Prr-Phytophthora root rot

**Table 3: Red Clover and Birdsfoot Trefoil Cultivar Yield Trials- 2009 Ithaca, Tompkins Co.**

T/A = tons per acre dry matter; 5%LSD = to claim statistically significant yield differences between two cultivars, the yield difference must be equal to or greater than the LSD.

Sown May 9, 2007		2009			2008	2-Yr.	
Red Clover		Total	% of	% Stand	Total	Total	% of
Cultivar/Experimental	Marketing Company*	Season	Cks.	8-Nov	Season		Cks.
		T/A			T/A	T/A	
Robust	Seed Research of Oregon	5.12	111	69	5.08	10.20	109
Star Fire II	AgriCulver/ AMPAC Seed	4.88	106	78	5.13	10.01	107
Raven	Seed Research of Oregon	4.99	109	72	4.93	9.92	106
Marathon (check)	WI Check	4.49	98	73	4.87	9.36	100
Arlington (check)	WI Check	4.70	102	68	4.64	9.34	100
Rocket	Seed Research of Oregon	4.24	92	70	4.85	9.09	97
Duration Extra	Preferred Seed	4.50	98	74	4.56	9.06	97
GO-ABT	Grassland Oregon	3.75	81	56	4.64	8.39	90
GO-ABR	Grassland Oregon	3.13	68	34	4.15	7.28	78
			Ck. Mean				Ck. Mean
5% LSD		0.88	4.60	7	0.50	1.35	9.35

Sown May 7, 2008		2009		
Red Clover		Total	% of	% Stand
Cultivar/Experimental	Marketing Company	Season	Cks.	8-Nov
		T/A		
CW040040	Cal/West Seeds	7.09	108	82
FP 345	Allied Seed LLC	6.99	107	83
CW202	Cal/West Seeds	6.86	105	83
RC0006 (expt)	Allied Seed LLC	6.81	104	80
Marathon (check)	WI Check	6.60	101	80
Arlington (check)	WI Check	6.49	99	76
			Ck. Mean	
5% LSD		0.58	6.54	6

Sown May 12, 2009		2009		
Red Clover		% of	% Stand	
Cultivar/Experimental	Marketing Company	26-Aug	Checks	9-Nov
- - - tons per acre dry matter - - -				
Exp RC 9703	Lewis Seed	1.70	104	98
Arlington	WI check	1.70	104	98
StarFire II	AgriCulver/ AMPAC Seed	1.67	102	98
C328	WI experimental	1.62	99	98
Marathon	WI check	1.58	97	98
			Ck. Mean	
5% LSD		0.11	1.64	

Sown May 12, 2009		2009		
Birdsfoot Trefoil		% of	% Stand	
Cultivar/Experimental	Marketing Company	26-Aug	Norcen	9-Nov
		T/A		
Bruce	Semican	2.70	151	95
WITT	Public Check	2.45	137	92
Pardee	Seedway/FSG/GROWMARK	2.42	135	94
AC Langile	Public Check	2.23	125	94
Norcen	Public Check	1.79	100	95
LSD(.05)		0.19		

Marketing Company*	Phone	Web address
AgriCulver	1-800-836-3701	<a href="http://www.agriculverseeds.com">www.agriculverseeds.com</a>
Allied Seed LLC	1-888-305-0500	<a href="http://www.alliedseed.com">www.alliedseed.com</a>
AMPAC Seed	1-541-928-1651	<a href="http://www.ampacseed.com">www.ampacseed.com</a>
Cal/West	1-530-666-3331	<a href="http://www.calwestseeds.com">www.calwestseeds.com</a>
Dairyland Seed Company	1-800-236-0163	<a href="http://www.dairylandseed.com">www.dairylandseed.com</a>
Grassland Oregon	1-503-566-9900	
Lewis Seed	1-541-491-3700	<a href="http://www.lewisseed.com">www.lewisseed.com</a>
Preferred Seed	1-716-895-7333	<a href="http://www.preferredseed.com">www.preferredseed.com</a>
Seed Research of Oregon	1-800-253-5766	<a href="http://www.sroseed.com">www.sroseed.com</a>
Seedway/FSG	1-800-836-3710	<a href="http://www.seedway.com">www.seedway.com</a>
Semican	1-866-736-4226	<a href="http://www.semican.ca">www.semican.ca</a>

**Table 4: 2009 Perennial Forage Grass Yield Summary Ithaca, Tompkins Co., Sown 2006, 2007, 2008**

T/A = tons per acre dry matter

Marketing contacts listed on page 9

5%LSD = claim statistically significant yield differences between two varieties, the yield difference must be equal to or greater than the LSD.

Heading date is date when 5 heads in a 3.5 x 16 foot plot were visible.

Trials were harvested four times per year

Soils: 2006 and 2008 plantings - Williamson silt loam; 2007 Niagara silt loam.

Marketer	2009			2008		2007		3 or 2-Yr. Total		
	Total Season	Oct. % Stand	Heading Date	Total Season	Heading Date	Total Season	Heading Date			
<b>Timothy</b>	Sown April 28, 2006									
Clair	check	6.68	68	22-May	5.94	29-May	6.40	25-May	19.03	
TM9701	Allied Seed Co., L.L.C.	6.82	70	22-May	5.42	29-May	6.78	26-May	19.02	
Summit	Seedway/FSG	6.65	70	22-May	5.40	29-May	6.16	26-May	18.21	
Crest (TM0102)	Seedway/FSG	6.43	76	28-May	5.09	3-Jun	5.81	31-May	17.33	
Climax	check	5.63	69	1-Jun	4.30	9-Jun	5.59	3-Jun	15.52	
Barpenta	Barenbrug	5.90	70	12-Jun	3.59	10-Jun	5.95	10-Jun	15.44	
Chazy	check	5.55	66	29-May	3.76	9-Jun	5.24	31-May	14.55	
PT2004A	Cropmark Seeds Ltd	5.17	71	7-Jun	3.64	9-Jun	4.30	3-Jun	13.11	
	LSD(.05)	0.38	5		0.60		0.34			
<b>Timothy</b>	Sown May 4, 2007									
Derby	Allied Seed Co., L.L.C.	6.81	70	22-May	T/A				T/A	
Clair	check	6.88	74	22-May	6.30	29-May			13.25	
Summit	Seedway/FSG	6.42	74	22-May	6.12	29-May			13.18	
Barpenta	Barenbrug USA	5.52	73	12-Jun	4.95	10-Jun			12.53	
Climax	check	5.33	74	1-Jun	4.37	9-Jun			10.47	
	LSD(.05)	0.34	6		0.29				9.71	
				<b>Leaf Tip Disease</b>						
<b>Orchardgrass</b>	Sown April 28, 2006			1=min., 3=max.						
IS-OG 39	DLF International Seeds	7.55	65	12-May	2.5	8-May	6.98	16-May	20.63	
Pennlate	check	7.04	64	11-May	2.0	8-May	6.98	16-May	20.12	
Endurance	DLF International Seeds	6.88	66	12-May	3.0	8-May	7.28	16-May	19.86	
OG 0204G	Seed Research of Oregon	6.61	64	15-May	1.9	5.54	13-May	6.43	19-May	18.58
Potomac	check	6.40	65	11-May	2.9	5.46	7-May	6.64	13-May	18.51
Olympia	Pennington Seed	6.40	71	11-May	2.6	5.74	7-May	6.33	13-May	18.48
Intensiv	check	6.54	68	18-May	1.5	5.19	18-May	5.92	20-May	17.66
Montana (Meadow Brome.)	Seed Research of Oregon	4.79	59	7-May	1.0	4.02	9-May	6.13	13-May	14.94
	LSD(.05)	0.62	5.24		0.5	0.47	0.49			
				<b>Leaf Tip Disease</b>						
<b>Orchardgrass</b>	Sown May 4, 2007			1=min., 3=max.						
Shiloh II	ProSeeds Marketing	7.77	70	12-May	2.1	8.00	8-May		15.76	
Potomac	check	7.74	65	11-May	2.0	7.80	8-May		15.54	
OG0203G	Allied Seed Co., L.L.C.	8.00	69	13-May	1.6	7.52	13-May		15.52	
Pennlate	check	7.96	69	13-May	1.0	7.38	11-May		15.34	
Warrior II	ProSeeds Marketing	7.57	70	13-May	1.1	7.51	11-May		15.08	
Profit	AgriCulver/AMPAC Seeds	7.49	70	13-May	1.0	7.48	13-May		14.98	
Command	Land O'Lakes	7.33	69	13-May	1.1	7.24	13-May		14.57	
Intensiv	check	7.51	66	18-May	1.0	6.91	18-May		14.42	
	LSD(.05)	0.51	6		0.5	0.59				
<b>Tall Fescue</b>	Sown April 28, 2006									
Select	check	7.31	70	19-May	5.45	15-May	7.86	22-May	20.62	
GO-TF	Grassland Oregon	7.18	66	18-May	5.67	15-May	7.75	23-May	20.59	
Drover	Barenbrug	7.40	65	15-May	5.16	12-May	7.37	15-May	19.93	
Savory	DLF International Seeds	7.00	66	18-May	4.86	15-May	7.04	23-May	18.89	
Enhance	Seedway/FSG	6.69	59	21-May	4.59	20-May	7.05	23-May	18.33	
BarElite	Barenbrug	6.57	66	24-May	4.87	26-May	6.80	25-May	18.24	
FA2003CS	Cropmark Seeds Ltd	5.80	60	19-May	4.60	15-May	6.20	22-May	16.59	
	LSD(.05)	0.69	5		0.77		0.66			
<b>Tall Fescue</b>	Sown May 4, 2007									
Select	check	8.47	69	18-May	8.49	18-May			16.96	
Stockman	Seed Research of Oregon	8.33	65	18-May	8.49	18-May			16.82	
RAD-ERF48	ProSeeds Marketing	8.37	69	18-May	8.41	16-May			16.78	
Enhance	Seedway/FSG	8.32	69	21-May	8.41	22-May			16.73	
IS-FTF 31	DLF International Seeds	8.19	69	18-May	8.27	16-May			16.46	
KY 31-	check	8.20	69	21-May	8.18	22-May			16.39	
KYFA9301/AR584	U of Kentucky	7.96	68	21-May	8.28	22-May			16.24	
TF0202	Allied Seed Co., L.L.C.	7.81	70	22-May	8.33	22-May			16.14	
BarElite	Barenbrug USA	7.02	71	24-May	7.15	26-May			14.17	
	LSD(.05)	0.51	4		0.43					
<b>Tall Fescue</b>	Sown April 25, 2008									
KY 31-	check	8.28	80	24-May						
KY 31+	check	8.18	83	21-May						
BAR FA BE9301A	Barenbrug USA	7.67	70	21-May						
Bariane	Barenbrug USA	7.30	80	27-May						
	LSD(.05)	0.42	4							
<b>Bromegrass</b>	Sown May 7, 2007									
Hakan	Barenbrug USA	5.40	81	27-May	6.91	29-May			12.31	
York	AMPAC Seed Co.	5.09	77	18-May	6.36	18-May			11.45	
Olga	Barenbrug USA	4.70	72	18-May	6.59	18-May			11.29	
Doina	Barenbrug USA	4.49	75	18-May	6.48	18-May			10.97	
Peak	Seedway/FSG	4.92	80	18-May	5.37	18-May			10.30	
Canterbury	Barenbrug USA	3.54	66	27-May	5.81	26-May			9.35	
	LSD(.05)	0.54	5		0.50					

All varieties are smooth bromegrass except for Canterbury which is a mountain bromegrass and Hakari which is an Alaska bromegrass.



**Table 4 (con't): 2009 Perennial Forage Grass Yield Summary Ithaca, Tompkins Co., Sown 2006, 2007, 2008**

T/A = tons per acre dry matter

Marketing contacts listed on page 9

5%LSD = claim statistically significant yield differences between two varieties, the yield difference must be equal to or greater than the LSD.

Heading date is date when 5 heads in a 3.5 x 16 foot plot were visible.

Trials were harvested four times per year

Soils: 2006 and 2008 plantings - Williamson silt loam; 2007 Niagara silt loam.

Marketer	2009			2008		2007		3 or 2-Yr. Total	
	Total	Oct.	Heading	Total	Heading	Total	Heading		
	Season	% Stand	Date	Season	Date	Season	Date		
	T/A			T/A		T/A		T/A	
<b>Bromegrass</b>									
Sown April 25, 2008									
York	AMPAC	5.93	74	18-May					
GRL	Barenbrug	5.88	76	18-May					
Peak	Seedway/FSG	5.87	80	16-May					
	LSD(.05)	0.50	8						
<b>Perennial Ryegrass</b>									
Sown April 28, 2006									
Tetrelite II	DLF International Seeds	5.14	58	26-May	4.15	29-May	6.24	27-May	15.53
Boost	Seedway/FSG	5.49	63	22-May	3.40	26-May	6.15	24-May	15.05
Spring Green (festulolium)	check	5.33	63	22-May	3.42	26-May	5.91	23-May	14.66
Birger	Burlingham Seeds	5.27	61	24-May	3.09	26-May	5.80	26-May	14.16
Aberecho	Grassland Oregon	4.51	51	18-May	2.78	15-May	5.93	19-May	13.22
Opus	Burlingham Seeds	4.88	58	18-May	2.85	15-May	5.39	23-May	13.12
Citadel	check	5.00	65	26-May	2.77	26-May	5.20	24-May	12.97
Aberdart	Grassland Oregon	4.72	59	21-May	2.40	15-May	5.14	23-May	12.25
BAR1M	Barenbrug	4.84	55	18-May	2.65	16-May	4.71	22-May	12.20
FH2004A	Cropmark Seeds Ltd	3.84	30	22-May	3.07	26-May	5.13	23-May	12.04
Linn	check	3.90	51	18-May	2.74	11-May	5.07	16-May	11.70
Aberavon	Grassland Oregon	5.00	60	26-May	2.04	29-May	4.63	22-May	11.67
Green Gold	UAP - NE	4.33	63	26-May	2.23	26-May	4.54	28-May	11.10
	LSD(.05)	0.45	5		0.37		0.53		
	CV(%)	6.7	6.0		8.9		7.1		
Tetraploid perennial ryegrass - Boost, Birger, Opus, Citadel, FH2004A, GreenGold; Diploid perennial ryegrass - Aberdart, Linn, BAR1M, Aberavon Intermediate Ryegrass - Tetrelite, Aberecho, Bandito									
<b>Perennial Ryegrass</b>									
Sown May 4, 2007									
1=min., 3=max.									
Quartermaster	Lewis Seed Co.	5.27	53	24-May	1.9	6.51	26-May	11.79	
Lato (Kentucky bluegrass)	Seedway/FSG	6.85	69	11-May	3.0	4.74	8-May	11.59	
Power	AgriCulver / AMPAC	5.18	54	26-May	1.9	5.75	26-May	10.94	
GO-ABV	Grassland Oregon	4.79	50	28-May	2.1	6.00	29-May	10.80	
Calibra	check	4.97	56	24-May	1.6	5.65	26-May	10.63	
Eurostar	Seed Research of Oregon	5.11	61	24-May	1.5	5.44	26-May	10.56	
Troy (Kentucky bluegrass)	check	6.10	76	7-May	3.0	4.30	8-May	10.40	
Citadel	check	5.05	53	26-May	1.4	4.92	26-May	9.97	
Sierra	Lewis Seed Co.	4.91	63	18-May	1.4	4.92	11-May	9.84	
GO-ABS	Grassland Oregon	5.25	59	22-May	1.6	4.36	18-May	9.61	
Tonga	AMPAC Seed Co.	4.52	53	18-May	1.4	4.87	18-May	9.39	
GO-ABZ	Grassland Oregon	4.75	63	26-May	1.8	4.58	26-May	9.33	
Linn	check	4.57	59	18-May	1.6	4.67	11-May	9.24	
GO-ABM	Grassland Oregon	4.80	61	26-May	1.5	4.10	24-May	8.91	
	LSD(.05)	0.34	7		0.3	0.54			
Tetraploid perennial ryegrass - Quartermaster, Eurostar, Power, Tonga; Diploid perennial ryegrass - Sierra, GO-ABM, GO-ABS, GO-ABZ; Intermediate ryegrass - GO-ABV									
<b>Perennial Ryegrass</b>									
Sown April 25, 2008									
Lato (Kentucky bluegrass)	Seedway/FSG	6.52	79	11-May					
Troy (Kentucky bluegrass)	check	5.98	83	7-May					
Calibra	check	5.85	80	24-May					
PSG 47 MOL	PICKSEED	5.73	80	24-May					
Barderby (Kentucky bluegr.)	Barenbrug	5.73	85	7-May					
Cancan	DLF International Seeds	5.59	80	12-Jun					
KenBlue (Kentucky bluegr.)	check	5.50	85	7-May					
PSG AM 108	PICKSEED	5.11	79	24-May					
Foxtrot	DLF International Seeds	5.03	81	2-Jun					
Linn	check	4.96	84	18-May					
Pastour	DLF International Seeds	4.95	81	2-Jun					
PSG 06 B Lh	PICKSEED	4.13	80	24-May					
	LSD(.05)	0.61	5						
Tetraploid perennial ryegrass - PSG 06 B Lh, PSG 47 MOL, PSG AM 108, Calibra; Diploid perennial ryegrass - Cancan, Foxtrot, Pastour, Linn									
<b>Marketing Co.</b>									
<b>Marketing Company</b>	<b>Phone Number</b>	<b>Web or E-mail Addr</b>							
AgriCulver	1-800-836-3701	<a href="http://www.agriculverseeds.com">www.agriculverseeds.com</a>							
Allied Seed Co., L.L.C.	1-888-305-0500	<a href="http://www.alliedseed.com">www.alliedseed.com</a>							
AMPAC Seed Company	1-800-547-3230	<a href="http://www.ampacseed.com">www.ampacseed.com</a>							
Barenbrug USA	1-800-547-4101	<a href="http://www.barusa.com">www.barusa.com</a>							
Burlingham Seeds	1-503-623-2306	<a href="http://www.burlinghamseeds.com">www.burlinghamseeds.com</a>							
Cropmark Seeds Ltd		<a href="http://www.cropmark.co.nz">www.cropmark.co.nz</a>							
DLF International Seeds	1-541-369-2251	<a href="http://www.dlfi.com">www.dlfi.com</a>							
Grassland Oregon	1-503-566-9900								
Land O' Lakes	1-800-328-9680	<a href="http://www.landolakesinc.com">www.landolakesinc.com</a>							
Lewis Seed Co.	1-541-466-3704	<a href="http://www.lewisseed.com/">www.lewisseed.com/</a>							
Pennington Seed	1-800-285-SEED	<a href="http://www.penningtonseed.com">www.penningtonseed.com</a>							
PICKSEED	705-878-9240	<a href="http://www.pickseed.com/ECanada/index.html">http://www.pickseed.com/ECanada/index.html</a>							
ProSeeds Marketing	1-541-928-9999	<a href="http://www.proseeds.net">www.proseeds.net</a>							
Seed Research of Oregon	1-800-253-5766	<a href="http://www.sroseed.com">www.sroseed.com</a>							
Seedway/FSG	1-800-836-3710	<a href="http://www.seedway.com">www.seedway.com</a>							



**Perennial Forage Grass Varieties - 2008 Forage Quality, Maturity and Yield at Spring Growth at Harvest 1 (See Table 6 below)**

Two samples were taken from each variety just prior to first harvest. The data from these samples can be used to compare forage quality of varieties on the same day, but at different stages of maturity. Varieties are sorted from earliest heading date to latest heading date within each trial.

Grass varieties that are harvested prior to boot stage such that the seed heads are not harvested in the first cutting, will have seed head emergence at the second harvest. Varieties with seed heads at second harvest can be expected to have lower forage quality at second harvest compared to a variety that does not have seed head emergence at that harvest. Samples were not taken for analyses at the second harvest.

**Table 6: 2008 Spring, First Harvest Forage Quality Data for Grass Varieties**

	Trial Sown 2006						Trial Sown 2007				
	First Harvest in 2008 - May 21			% Seed	2008 Aftermath		First Harvest in 2008 - May 24			% Seed	2008 Aftermath
	Yield (t/a) Harvest 1	% NDF	% NDFD	Heads at Harvest 2	Forage Yield (t/a)		Yield (t/a) Harvest 1	% NDF	% NDFD	Heads at Harvest 2	Forage Yield (t/a)
<b>Orchardgrass</b>						<b>Orchardgrass</b>					
Olympia	3.16	61	72	3	2.58	Potomac	2.91	59	73	1	4.90
Potomac	2.79	59	73	2	2.67	Shiloh II	2.77	58	74	1	5.23
IS-OG 39	2.95	58	74	4	3.15	Pennlate	2.40	57	76	1	4.99
Pennlate	2.96	58	75	2	3.15	Warrior II	2.68	57	75	1	4.82
Endurance	2.83	57	73	2	2.87	Command	2.69	54	78	1	4.55
Montana (Meadow Brome.)	2.21	60	81	1	1.81	OG0203G	2.85	57	75	1	4.67
OG 0204G	2.82	58	77	3	2.72	Profit	2.42	57	74	1	5.06
Intensiv	2.55	55	77	16	2.65	Intensiv	2.36	58	76	1	4.55
<b>Timothy</b>						<b>Timothy</b>					
Clair	2.83	52	79	5	3.12	Clair	2.73	54	76	2	3.57
TM9701	2.57	52	80	5	2.85	Derby	2.63	54	79	3	3.81
Summit	2.50	51	78	5	2.90	Summit	2.58	53	78	2	3.54
Crest (TM0102)	2.22	50	82	8	2.88	Climax	1.90	47	82	14	2.48
Climax	1.67	45	86	40	2.64	Barpenta	1.67	46	85	58	3.28
PT2004A	1.57	41	84	23	2.07						
Chazy	1.50	44	84	50	2.26						
Barpenta	1.32	44	86	63	2.27						
<b>Perennial Ryegrass</b>						<b>Perennial Ryegrass</b>					
Linn	1.84	48	75	95	0.90	Lato	1.32	43	76	0	3.43
Opus	1.43	41	81	95	1.42	Troy	1.37	57	72	0	2.92
Aberecho	1.27	34	84	95	1.51	Linn	2.40	46	78	65	2.28
Aberdart	0.98	37	81	95	1.42	Sierra	2.34	47	76	85	2.58
BAR1M	1.18	41	82	95	1.47	Tonga	1.94	37	81	79	2.93
Boost	1.57	43	83	90	1.83	GO-ABS	1.20	36	83	81	3.16
Spring Green	1.49	42	84	88	1.93	GO-ABM	0.97	34	85	88	3.13
Birger	1.14	38	82	83	1.95	Quartermaster	2.67	41	81	95	3.85
Citadel	0.86	39	84	93	1.90	Power	2.03	38	81	94	3.73
FH2004A	0.76	37	81	95	2.31	Calibra	1.98	40	82	90	3.68
Green Gold	0.70	35	83	95	1.53	Eurostar	1.59	37	82	94	3.86
Tetrelite II	1.75	41	82	95	2.40	GO-ABZ	1.32	35	82	83	3.26
Aberavon	0.57	35	82	95	1.47	Citadel	1.26	38	84	90	3.66
<b>Tall and Meadow Fescue</b>						Aberavon	2.51	40	82	94	3.50
Drover	1.64	50	72	1	3.51	<b>Tall and Meadow Fescue</b>					
Select	1.83	52	73	3	3.62	RAD-ERF48	2.38	49	73	1	6.04
GO-TF	1.70	51	73	2	3.97	IS-FTF 31	2.30	51	73	1	5.97
Savory	1.57	52	74	5	3.29	Select	2.50	51	74	1	5.99
FA2003CS	1.47	51	72	4	3.13	Stockman	2.39	48	74	1	6.10
Enhance	1.40	47	75	3	3.19	Enhance	2.34	46	75	1	6.08
BarElite	1.39	49	75	25	3.49	KYFA9301/AR584	2.38	50	75	1	5.90
						KY 31	2.24	47	76	1	5.95
						TF0202	2.26	47	74	1	6.07
						BarElite	1.81	45	77	5	5.34
						<b>Bromegrass - First Harvest May 31</b>					
						Olga	3.17	66	70	6	3.42
						Doina	3.12	66	70	8	3.36
						York	2.67	65	71	2	3.69
						Peak	2.47	63	71	3	2.91
						Canterbury	2.62	60	76	90	3.19
						Hakari	2.82	59	78	90	4.09

Table 7: Annual Ryegrass Trials, and Perennial Cool Season Grass Trials Sown in 2009.

Variety	Marketing Company	2009			2008	
		Total Season	Heading Date	% Stand 16-Nov	Total Season	2-Yr. Total
<b>Annual Ryegrass</b>		Sown April 25, 2008				
MX 108	PICKSEED	6.77	22-May	65	3.62	10.39
PSG 29 BF 06	PICKSEED	6.48	24-May	75	3.84	10.32
Feast II	Check	6.36	22-May	69	3.68	10.03
Hercules	Barenbrug	6.58	24-May	73	3.39	9.96
Marshall	Check	5.61	24-May	38	3.93	9.54
LSD(.05)		0.58		6	0.45	
<b>Annual Ryegrass</b>		Sown May 6, 2009				
Feast II	AgriCulver / AMPAC	5.72		85		
Feast II	check	5.49		85		
Bruiser	AgriCulver / AMPAC	5.27		91		
Fantastic	AgriCulver / AMPAC	5.12		92		
AMP-11R	AMPAC	4.55		92		
PSG 29 BF 06	PICKSEED	4.17		85		
06 B Lh	PICKSEED	3.91		84		
MX 108	PICKSEED	3.54		86		
A 108	PICKSEED	3.23		88		
LSD(.05)		0.52		5		
<b>Perennial Ryegrass</b>		Sown May 6, 2009				
Duo	AMPAC	2.13		95		
Impressario	DLF International Seeds	1.91		95		
Spring Green	check	1.86		94		
Power	AgriCulver / AMPAC	1.84		95		
AMP-MDR2	AMPAC	1.77		95		
AMP-EDR1	AMPAC	1.75		93		
Tonga	AMPAC	1.64		94		
Calibra	check	1.63		95		
Orantas	DLF International Seeds	1.61		95		
Linn	check	1.30		93		
LSD(.05)		0.23		2		
<b>Orchardgrass</b>		Sown May 6, 2009				
Profit	AgriCulver / AMPAC	2.25		95		
Profit-coated	AgriCulver / AMPAC	2.17		90		
IS-OG 52	DLF International Seeds	2.13		92		
Potomac	check	2.11		95		
Tekapo-coated	AMPAC	1.86		85		
Tekapo	AMPAC	1.73		87		
Dividend VL	Allied	1.36		89		
AMP-1MB	AMPAC	1.04		89		
LSD(.05)		0.20		3		
<b>Tall Fescue</b>		Sown May 6, 2009				
IS-FTF 48	DLF International Seeds	2.44		94		
Goliath	AMPAC	2.37		93		
KY 31 E-	check	2.27		95		
Bronson	AgriCulver / AMPAC	2.25		95		
KY 31 E+	check	2.14		94		
Pradel	check	2.09		93		
AMP-1MF	AMPAC	1.93		94		
Goliath-coated	AMPAC	1.91		90		
LSD(.05)		0.30		3		

2009 Weather Data for Ithaca New York and for New York State

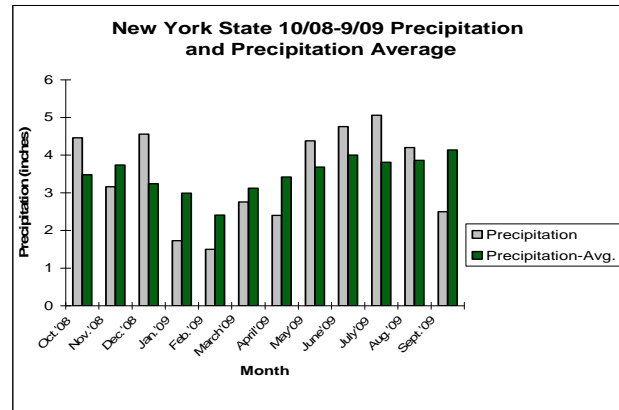
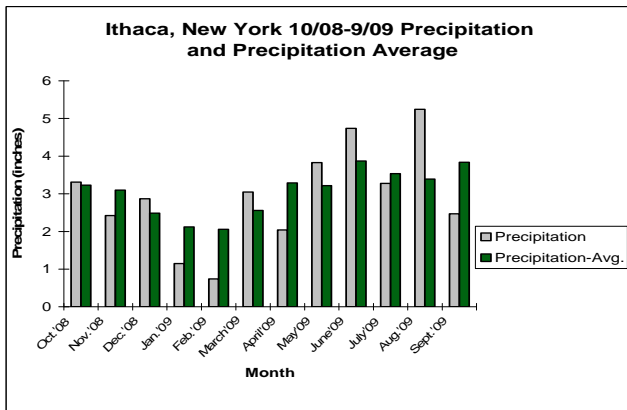
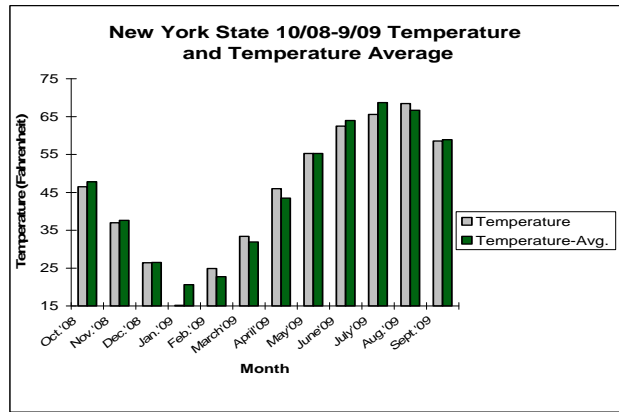
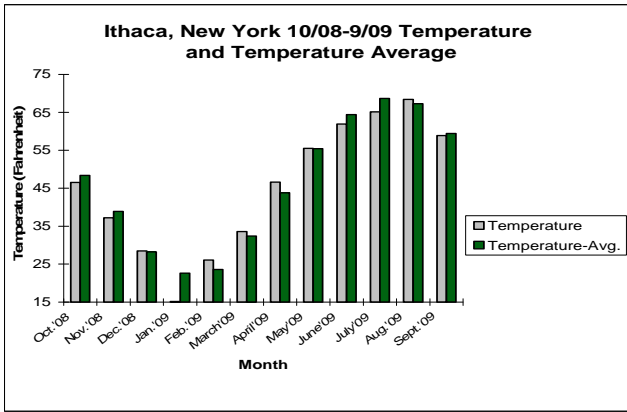


Figure 1: Ithaca, New York 10/08-9/09 temperature and precipitation. Weather data from the Northeast Regional Climate Center at Cornell University.

Figure 2: New York State 10/08-9/09 temperature and precipitation. Weather data from the Northeast Regional Climate Center at Cornell University.

Table 8: Index of Forage Varieties in 2009 Summary Report and Page Number where information is located.

<b>Alfalfa</b>	<b>Pg. No.</b>	<b>Red Clover</b>	<b>Pg. No.</b>	<b>Tall Fescue</b>	<b>Pg. No.</b>
6415	3,4,6	Arlington	7	AMP-1MF	12
6417	3,4,6	C328	7	BAR FA BE9301A	8
6426	5,6	CW040040	7	BarElite	8,10,11
4A421	3,6	CW202	7	Bariane	8
4G418RR	3,6	Duration Extra	7	Bronson	12
4P424	5,6	Exp RC 9703	7	Drover	8,10,11
4S417	5,6	FP 345	7	Enhance	8,10,11
5312 (check)	3,4,5,6	GO-ABR	7	FA2003CS	8,10,11
53H92	5,6	GO-ABT	7	Goliath	12
54V46	3,6	Marathon	7	Goliath-coated	12
55V48	3,4,5,6	Raven	7	GO-TF	8,10,11
A 5225	3,4,6	RC0006 (expt)	7	IS-FTF 31	8,10,11
A4440	3,6	Robust	7	IS-FTF 48	12
AmeriStand 403T Plus	5,6	StarFire II	7	KY 31-	8,10,11,12
AmeriStand 404LH	5,6			KY 31+	8,12
AmeriStand 407TQ	3,4,5,6	<b>Birdsfoot Trefoil</b>		KYFA9301/AR584	8,10,11
DKA34-17RR	3,6	Bruce	7	Pradel	12
DKA41-18RR	3,6	WITT	7	RAD-ERF48	8,10,11
DKA43-13	3,4,5,6	Pardee	7	Savory	8,10,11
Enforcer	5,6	AC Langile	7	Select	8,10,11
Escalade	3,4,6	Norcen	7	Stockman	8,10,11
EverGreen 3	5,6			TF0202	8,10,11
FG44H375	5	<b>Timothy</b>			
FSG 329	5,6	Barpenta	8,10, 11	<b>Bromegrass</b>	
FSG 351	3,4,6	Chazy	8,10, 11	Canterbury	8,10,11
FSG 400LH	5,6	Clair	8,10, 11	Doina	8,10,11
FSG 406	3,4,6	Climax	8,10,11,12	GRL	9
FSG 408DP	5,6	Crest (TM0102)	8,10,11	Hakari	8,10,11
FSG 420 LH	5,6	Derby	8,10,11	Olga	8,10,11
Genoa	3,4,6	PT2004A	8,10,11	Peak	8,9,10,11
Guardman II	3,4,5,6	Richmond	12	York	8,9,10,11
HybriForce-2400	5,6	Summit	8,10,11		
Integrity	3,6	TM9701	8,10,11	<b>Perennial Ryegrass</b>	
Keystone	3,4,6	Tuukka	12	Aberavon	9,10, 11
Kingfisher 30-30 Q	3,6			Aberdart	9,10, 11
L 333 HD	4,5,6	<b>Orchardgrass</b>		Aberecho	9,10, 11
L 447 HD	3,4,6	AMP-1MB	12	AMP-EDR1	12
Lander	3,4,6	Command	8,10,11	AMP-MDR2	12
LegenDairy 5.0	5,6	Dividend VL	12	BAR1M	9,10, 11
Lightning EXTRA	3,6	Endurance	8,10,11	Barderby (Kentucky bluegr)	9
Mariner III	3,6	Intensiv	8,10,11	Birger	9,10, 11
Marvel	3,4,6	IS-OG 39	8,10,11,12	Boost	9,10, 11
msSunstra-807	5,6	Montana (Meadow Brome.)	8,10,11	Calibra	9,10,11,12
Oneida VR	3,4,5,6	OG 0204G	8,10,11	Cancan	9
PGI 459	3,4,6	OG0203G	8,10,11	Citadel	9,10, 11
Pounce	5,6	Olympia	8,10,11	Duo	12
Prolific II	5,6	Pennlate	8,10,11	Eurostar	9,10, 11
Radiance HD	5,6	Potomac	8,10,11,12	FH2004A	9,10, 11
Radiant-AM	3,6	Profit	8,10,11,12	Foxtrot	9
Rebound 5.0	4,5,6	Profit-coated	12	GO-ABM	9,10, 11
ReGen	3,4,5,6	Shiloh II	8,10,11	GO-ABS	9,10, 11
Seedway 9558	3,4,6	Tekapo	12	GO-ABZ	9,10, 11
Starbuck	3,6	Tekapo-coated	12	Green Gold	9,10, 11
Syngenta 64Q22	5,6	Warrior II	8,10,11	Impressario	12
Vernal	3,4,5,6			KenBlue (Kentucky bluegr.)	9
WL 343 HQ	3,4,5,6	<b>Annual Ryegrass</b>		Lato (K.Bluegr.)	9,10, 11
WL 345LH	5,6	06 B Lh	12	Linn	9,10,11,12
WL 347LH	5,6	A 108	12	Opus	9,10, 11
WL 355 RR	3,6	AMP-11R	12	Orantas	12
WL 363 HQ	3,4,5,6	Bruiser	12	Pastour	9
		Fantastic	12	Power	9,10,11,12
		Feast II	12	PSG 06 B Lh	9
		Hercules	12	PSG 47 MOL	9
		Marshall	12	PSG AM 108	9
		MX 108	12	Quartermaster	9,10, 11
		PSG 29 BF 06	12	Sierra	9,10, 11
				Spring Green	10,11,12
				Spring Green (festulolium)	9,10,11,12
				Tetrelite II	9,10, 11
				Tonga	9,10,11,12
				Troy (K. Bluegr.)	9,10, 11