2021 New York Red Clover Yield Trials; Cornell University;
School of Integrative Plant Science, Plant Breeding and Genetics Section

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<u>Ithaca</u>, South Central New York USDA Plant Hardiness Zone 5b

2018 Commercial and Experimental Seeding
2019 Commercial and Experimental Seeding
2021 Commercial and Experimental Seeding

Red Clover Cultivar Trial Protocol and Notes:

Trials are seeded with a 6 row seeder and harvested with a Carter Harvester with a 1 meter cutting width head. The trials are planted in randomized complete block designs. All trials are planted with 5 or 6 replicates. Trials are harvested 3 times each year. Check cultivars planted in each trial are Marathon and Cinnamon Plus. At each harvest, one third to one fifth of the plots are sampled for dry matter determination. A digital hanging scale is used to measure plot weights. A portable platform scale is used to weigh the samples taken for dry matter determination. Samples are oven dried for 7 days at 55 degrees C. Trial applications and summaries are found at:

https://blogs.cornell.edu/varietytrials/forage/

<u>2021 Notes</u>: The trial planted in 2020 failed and the 2020 trial entries were replanted in the 2021 red clover trial. The trial planted in 2019 was harvested for three harvests in 2021 will be harvested in third production year (2022) if the plot outlines are visible. The trial planted in 2018 was harvested for two harvests after hand weeding the plot area. This trial had low plant stands and very low yields in 2021 in the third production year.

Following the summer of 2020 when it was quite dry and hot, the summer of 2021 was quite wet and hot. From April 2020 to October 2020, the average precipitation per month was 5.4 inches. From April 2020 to October 2020, the average temperature was 2 degrees F over the 30 year normal (1990-2020). June, August and October were all above average for temperature. Some COVID-19 restrictions remained in place for 2021. Thanks to the harvesting crew: Jesse Chavez, Jason Schiller, Ryan Crawford, Jamie Crawford, Johanna Gertin, Christina McMillan, Adrian Driesbaugh, Ileana Katzman, and CUAES CAF and Musgrave Farm Crews, including Farm managers Gene Sczepanski and Paul Stachowski, and SUNY Cobleskill Farm manager Kane Seamon.

2021 New York Red Clover Yield Trials

Cornell U. Agricultural Experiment Station, Tompkins Co., Ithaca, NY

Sown May 2018

Sowii May 2010										
Released And	Released And							% of Checks Mean		
Experimental	2021 Harvest (yields reported in tons/acre)		2021	2020	2019	3-Yr.	2021	3-Yr.		
Cultivars	24-Jun	29-Jul	Total t/a	Total t/a	Total t/a	Total t/a	Total	Total		
Freedom!	1.04	0.46	1.57	3.25	5.81	10.85	177	122		
Blaze	1.03	0.38	1.50	2.88	5.53	10.20	169	114		
Freedom! MR	0.89	0.49	1.43	2.99	5.48	9.87	161	110		
Cinnamon Plus	0.75	0.36	1.17	2.55	5.39	9.68	132	108		
Marathon	0.43	0.10	0.60	2.06	5.34	8.17	67	91		
							Ck. Me	Ck. Mean (t/a)		
Mean	0.80	0.31	1.16	2.60	5.45	9.51	0.89	8.93		
5% LSD	0.64	0.17	0.49	0.31	0.71	1.02				
CV (%)	19.5	31.7	24.7	9.2	5.6	6.2				

Marathon and Cinnamon Plus are the check cultivars for Cornell Red Clover Trials.

back to top

2021 New York Red Clover Yield Trials

Cornell U. Agricultural Experiment Station, Tompkins Co., Ithaca, NY

Sown June 2019

Released And							_	% of Checks Mean	
Experimental	2021 Harvest	t (yields reported	d in tons/acre)	2021	2020	2-Yr.	% Stand	2021	2-Yr.
Cultivars	17-Jun	26-Jul	13-Sep	Total t/a	Total t/a	Total t/a	10-Nov-21	Total	Total
Freedom!MR	2.30	1.09	0.77	4.15	3.13	7.28	62	125	117
BAR TP9	2.09	1.01	0.81	3.91	2.90	6.81	66	118	110
Cardinal 2	1.99	1.04	0.75	3.78	3.01	6.78	62	114	109
BAR TP11	1.79	0.95	0.67	3.43	3.10	6.53	60	104	105
Cinnamon Plus	2.00	0.86	0.73	3.58	2.92	6.50	64	108	105
Marathon	1.65	0.71	0.68	3.03	2.86	5.90	54	92	95
GA-9908	1.66	0.53	0.63	2.83	2.89	5.71	48	85	92
								Ck. Mean (t/a)	
Mean	1.82	0.82	0.69	3.33	2.79	6.12	55	3.31	6.20
5% LSD	0.31	0.28	0.10	0.59	0.21	0.67	10		
CV (%)	13.5	26.8	11.9	13.9	6.0	8.7	14.0		

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back to top

2021 New York Red Clover Yield Trials

Cornell U. Agricultural Experiment Station, Tompkins Co., Ithaca, NY

Planted May 2021, Entries from 2020 replant and 2021.

Released And
Experimental
Varieties
Source

BAR TP10 Barenbrug
Barduro Barenbrug

Blaze Mountain View Seeds

Cinnamon Plus check
CW040040 Barenbrug
CW30091 Barenbrug
Evolve DLF Pickseed
Freedom!MR Barenbrug
Marathon check

RC08 Bailey Seed and Grain

Redkin DLF Pickseed

Robust III Columbia Seeds/ Blue Moon

TP-12 DLF Pickseed

back to top