

NATIONAL COVER CROP VARIETY TESTING PROGRAM

2025-2026 Trial Results



Center for Regenerative
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U.S. DEPARTMENT OF AGRICULTURE



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<https://cra.missouri.edu/cover-crop-variety-development-project/>

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PROGRAM OVERVIEW

The goals of the National Cover Crop Variety Testing Program are to:

- 1) evaluate performance of commercially available cover crop varieties, as well as those nearing the release and commercialization stage;
- 2) determine where these varieties are best adapted; and
- 3) increase awareness of cover crop varietal diversity for use in different regions and cropping systems of the U.S.

Initiated in fall 2024, the program has now completed its second season of trials at thirteen sites across the United States (Figure 1). Each site grew and evaluated multiple varieties of the most popular fall-planted cover crop species, including cereal rye (*Secale cereale*), crimson clover (*Trifolium incarnatum*), winter peas (*Pisum sativum*), hairy vetch (*Vicia villosa*), winter canola (*Brassica napus*), and radishes (*Raphanus sativus*). Species and varieties were selected to represent a range of traits and a broad cross section of sources. Unless approved by the report authors, reproduction of any table in this document must include the entire table. The information herein is intended to provide an objective understanding of cover crop performance; no endorsement by the program is implied.

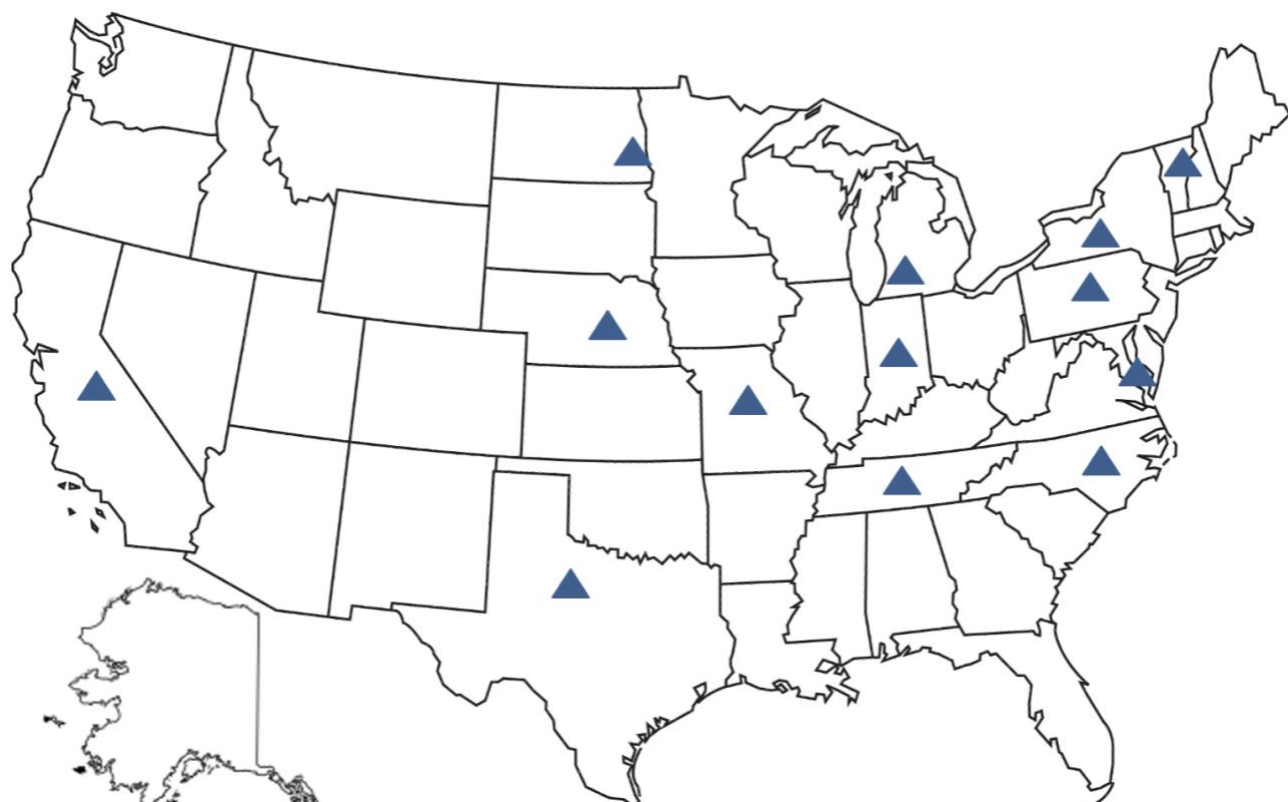


Figure 1. Locations of cover crop variety testing sites for the 2025-2026 season.

TESTING PROCEDURES

Trial design

Trials were planted in a split-plot design (main plot = species, subplot = variety) with three replicate blocks at each location. Main plots and subplots were fully randomized within each block. Prior to planting, soil was tilled followed by field condition or cultipack to firm the seedbed at most sites. Cover crops were drilled into plots of roughly 5' x 15' in fall 2025 and left to overwinter into spring 2026. Planting and termination dates varied across sites according to typical cover crop management practices for each location. All legume species were coated with an appropriate inoculant prior to planting. Unless otherwise noted, plots did not receive fertility amendments and were rainfed during the cover crop growing season. A full list of varieties, seeding rates, planting depths, and seed sources is detailed in Table 1.

Evaluation metrics

Fall stand: A visual estimate of the percentage (%) of plants that emerged in the plot. A score of 100% means that all plants emerged, while a score of 0% indicates that no plants emerged. Measured two months after planting or before first frost depending on location.

Spring stand: Similar to fall establishment, a visual estimate of the percentage (%) of plants that emerged in the plot, taken two weeks after spring greenup. A good indicator of winter hardiness when compared to fall stand.

Aboveground biomass: Measured using destructive sampling with a 0.25 m² quadrat. All plant material rooted within or directly under the quadrat frame (excluding weeds) was clipped, dried at 60°C for 48 hours, and weighed to calculate dry weight in lbs acre⁻¹. Species were sampled in accordance with typical termination dates for each location. Species expected to winter-kill were sampled in the fall shortly before first frost.

Flowering at termination: A visual estimate of the percentage (%) of plants flowering at spring biomass sampling (or at termination, if different), as an indicator of maturity.

Stand height: Height of the cover crop stand (cm) at biomass sampling.

Weed pressure: Rated on a scale of 1 to 5 at biomass sampling, with 1 being very low weed pressure, and 5 being very strong weed pressure.

Disease pressure: Reported when applicable on a scale of 1 to 5 at biomass sampling, with 1 being very low disease pressure, and 5 being very strong disease pressure.

Statistical analysis

For each site, evaluation metrics for each species were analyzed using the lme4 package for mixed models in R v. 4.6.1. Models included variety as a fixed effect and replicate block as a random effect. Where significant differences were identified at $\alpha < 0.05$, mean separation was performed with the *diffsmeans* function. Means are reported at each site, including 2-year biomass means for varieties with both 2024-25 and 2025-26 data. For each metric, bold font indicates significant differences. Where multiple varieties are bolded for a given metric, they are significantly different from non-bolded varieties, but not from each other.

Cover crop variety descriptions

Table 1. Cover crop species, seeding rates, seeding depths, varieties, and seed sources for the 2025-2026 trial season.

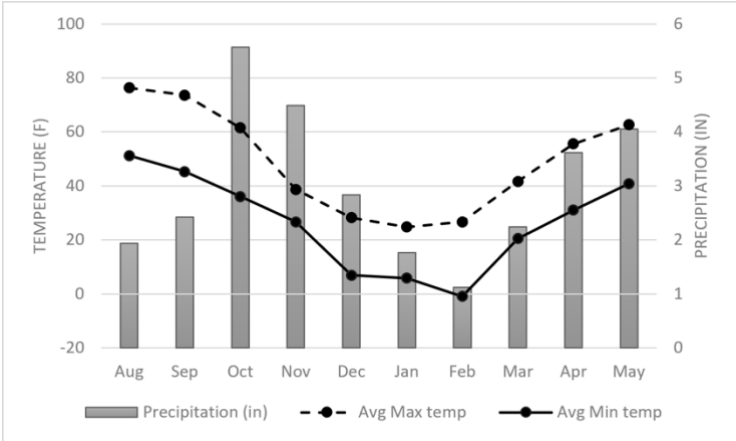
Species	Seeding rate	Seeding Depth	Variety	Source	Description
Cereal rye	120 lbs/ac	1" to 1 ½"	Hazlet	Albert Lea Seed	Shorter variety developed in Canadian prairie with strong winter hardiness.
			Wrens Abruzzi	Southeast Agriseeds	High biomass, early maturing, disease tolerant variety from Southeast region.
			NC20-R109	CCB Network	Experimental line being developed for allelopathic properties.
			ND Gardner	Albert Lea Seed	Winter hardy variety from North Dakota. Early season vigor and early maturity.
			Aroostook	Ernst Seeds	Northeastern variety suitable for roller crimping. Early maturity.
			Wheeler	Moore Seed Farm	Very late maturity. For use as a cover crop and/or for forage and grazing.
Crimson clover	15 lbs/ac	¼"	Elbon	Southeast Agriseeds	Widely adapted variety with early/intermediate maturity.
			17MDCC-soft	CCB Network	Soft-seeded experimental line; strong fall/spring vigor, biomass, winter survival.
			Dixie	Smith Seed Services	Widely available option, but with unknown genetic uniformity.
			Heusers Otsaat	Columbia Seeds	German variety with intermediate maturity for zones 6 and lower.
			Kentucky Pride	GO Seed	Fast establishing, tolerant to cold and water logging, later maturity.
Balansa clover	5 lbs/ac	¼"	19MDCC	CCB Network	Experimental line developed for fall/spring vigor, biomass, winter survival.
			Fixation	Go Seed	Developed for cold tolerance and a wide variety of soil types. Later maturity.
Vetch*	20 lbs/ac	1" to 2"	Viper	Albert Lea Seed	Rapid establishment, early maturing, tolerance to waterlogging.
			Purple Bounty	ERNST Seeds	Smooth vetch with early maturity; excels in heavy soils, but less cold tolerant.
			20MDHV-soft	CCB Network	Experimental variety with strong biomass, vigor, and seed production.
			Purple Reign	CCB Network	Strong winter survival, biomass, seed yield. Available soon through Albert Lea.
			22NYHV	CCB Network	A mixture of smooth vetch and hairy vetch.
			23WIHV	CCB Network	Soft-seeded with later maturity, good winter survival and seed production.
			AU Merit	Southeast Agriseeds	Southern variety with high biomass, early maturity, and disease resistance.
Winter peas	8 PLS/ft²**	South: 1 ½" North: 2-3"	19NCEHV	CCB Network	Earlier maturity, strong overall performance.
			Frostmaster	Athens Seed Co.	Rapid fall growth, high quality forage.
			WyoWinter	Southeast Agriseeds	High biomass, winter hardy with early maturity from University of Wyoming.
			Austrian Winter	Mixon Seed Service	Commonly used variety-not-stated (VNS) option.
			Survivor	GO Seed	High biomass, winter hardy, rapid spring green-up, intermediate maturity.
			Doudlah Diehard	CCB Network	Developed in Wisconsin for strong fall and spring vigor, biomass, winter survival.
			Canandaigua	Lakeview Organic Seed	Developed in upstate New York for winter hardiness, high biomass.
Winter canola	3.5 lbs/ac	½" to 1"	Keystone	Southeast Agriseeds	Tall variety with late maturity. Popular in southern regions.
			CP1066WC	CROPLAN	Strong winter hardiness and spring vigor with high biomass.
			Torrington	Ohlde Seed Farms	Good winter hardiness and vigor with consistent performance.
			Trophy	Albert Lea Seed	Rapid fall growth, drought tolerant, suitable for forage.
Radish	10 lbs/ac	¼" to ½"	KS 4989	Kansas State University	Experimental variety being developed for high vigor and biomass.
			Aerifi	Mountain View Seeds	Fast establishment, uniform growth, and later maturity than other varieties.
			Driller	GO Seed	Large and deep taproot. Residue offers spring weed control.
			FragiBlaster	Albert Lea Seed	Developed for breaking up hard sub-surfaces, increasing water permeation.

*Unless otherwise noted, vetch varieties are hairy vetch. ** PLS = pure live seed. CCB = Cover Crop Breeding.

RESULTS

VERMONT (Alburgh)

Soil texture: Covington silty clay loam
Soil quality: Average
Topography: Gentle slopes
Previous crop: Alfalfa
Fall planting: 8/21/25
Method: Drilled
Biomass–fall: 10/23/25
Biomass–spring: 5/20/26
Fertilizer: None
Irrigation: None
Termination: Roller crimp



Other notes: Soils were dry at planting, and the dry weather persisted through the fall, contributing to challenging establishment conditions. There was colder winter weather with lower snow cover, followed by delayed spring green-up compared to the 2024-2025 season. Plots also faced strong weed pressure this season.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 20 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
CRIMSON											
17MDCC-soft	97	50	-	-	-	1687	480	2893	22	0	5
Dixie	97	47	-	-	-	1496	264	2727	24	0	5
Huesers Ostaat	97	30	-	-	-	1681	414	2948	16	0	4
Kentucky Pride	90	60	-	-	-	1513	430	2596	31	0	5
19MDCC	100	23	-	-	-	966	0	1932	0	0	-
BALANSA											
Fixation	13	5	-	-	-	-	0	-	-	0	5
Viper	3	10	-	-	-	-	219	-	-	0	5
HAIRY VETCH											
Purple Bounty	97	72	-	-	-	2286	1925	2646	34	0	3
20MDHV-soft	100	83	-	-	-	2275	1707	2842	44	0	2
Purple Reign	90	87	-	-	-	2467	2147	2786	42	0	2
AU Merit	100	73	-	-	-	1914	1560	2268	48	0	3
19NCEHV	97	90	-	-	-	2237	1476	2998	45	0	2
22NYHV	100	82	-	-	-	-	1600	-	46	0	3
23WIHV	100	77	-	-	-	-	1576	-	43	0	3
WINTER PEAS											
Frostmaster	100	0	-	-	-	249	0	497	0	-	-
WyoWinter	100	0	-	-	-	573	0	1146	0	-	-
Austrian (VNS)	100	0	-	-	-	336	0	671	0	-	-
Survivor	100	0	-	-	-	509	0	1018	0	-	-
Keystone	100	0	-	-	-	307	0	613	0	-	-
Doudlah Diehard	100	0	-	-	-	-	0	-	0	-	-
Canandaigua	100	0	-	-	-	-	0	-	0	-	-

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 20 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	100	100	-	-	-	-	4374	-	99	Flagleaf	1
Wrens Abruzzi	100	100	-	-	-	4546	6527	2564	125	Heading	1
NC20-R109	100	100	-	-	-	3412	5118	1706	126	Heading	1.7
ND Gardner	100	100	-	-	-	4005	5142	2867	120	Heading	1.7
Elbon	100	100	-	-	-	4406	5989	2823	124	Heading	1
Wheeler	100	100	-	-	-	-	3851	-	99	Flagleaf	1
Aroostook	100	100	-	-	-	-	4749	-	129	Heading	1
WINTER CANOLA											
CP1066WC	100	73	-	-	-	3264	2613	3915	103	100	2.3
Torrington	100	73	-	-	-	3352	2205	4499	109	100	3
KS 4989	93	77	-	-	-	2982	2545	3419	104	100	2.3
Trophy	97	63	-	-	-	-	2943	-	113	100	3.3
RADISH											
Aerifi	100	0	-	1609	-	214	0	427	29*	-	1
Driller	100	0	-	1668	-	301	0	601	28*	-	1
FragiBlaster	100	0	-	1070	-	-	0	-	29*	-	1

*Measurement is from fall 2025

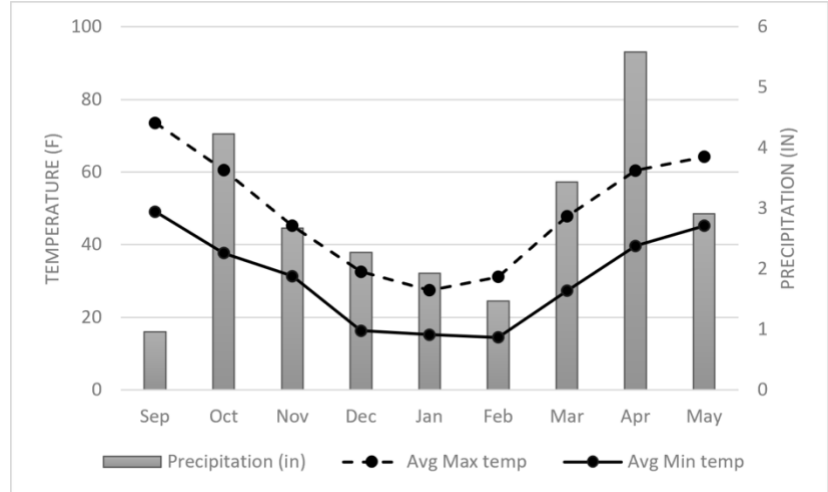
Highlights:

- Winter weather was too harsh for winter peas, clovers, and radishes.
- Rye, vetch, winter canola, and radishes provided good weed control and biomass.
- New vetch variety from Cover Crop Breeding Network – Purple Reign – had highest two-year biomass average, consistent performance, and good weed control.
- By June 3, many varieties had reached maturity: winter canola was at pod set with seeds forming; all clovers were flowering; rye was at pollen shed; and vetch maturity varied by variety (100% flowering for 22NYHV, Purple bounty, and 19NCEHV; 50% flowering for 22MNHV, 20MDHV-soft, and AU Merit; vegetative stage for 23WIHV)
- All rye and winter canola varieties responded well to roller crimping, but clovers and vetch popped back up and continued to flower.



NEW YORK (Freeville)

Soil texture: Silt loam
 Soil quality: Average
 Previous crop: Buckwheat
 Fall planting: 8/3/25 (clovers, vetch, brassicas)
 8/18/25 (rye/peas)
 Method: Drilled
 Biomass–fall: 11/4/25
 Biomass–spring: 5/27/26
 Fertilizer: None
 Irrigation: None
 Termination: Mow



Other notes: Fall conditions were conducive to strong emergence and growth, with ample soil moisture at or immediately following planting and sufficient precipitation throughout the fall. The winter brought consistently cold weather and high snow cover, followed by a wet spring. This site faced strong weed pressure.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 27 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	92	65	-	-	-	2431	3237	1625	48	100	2.3
Dixie	92	78	-	-	-	3306	4140	2472	62	100	1.7
Huesers Ostaat	94	66	-	-	-	3923	4282	3564	52	100	2.7
Kentucky Pride	93	83	-	-	-	3497	4070	2924	53	100	1.7
19MDCC	92	54	-	-	-	3163	3268	3057	48	100	2.3
<i>BALANSA</i>											
Fixation	71	38	-	-	-	-	3075	-	56	17	2.7
Viper	73	23	-	-	-	-	942	-	39	67	3
HAIRY VETCH											
Purple Bounty	80	75	-	-	-	3542	3936	3148	70	1.7	1
20MDHV-soft	85	85	-	-	-	3001	3755	2246	53	1.7	1
Purple Reign	78	73	-	-	-	2862	3166	2558	48	0	1
AU Merit	84	81	-	-	-	2743	3410	2075	50	0	1
19NCEHV	90	79	-	-	-	3141	3945	2336	58	0	1.3
22NYHV	89	84	-	-	-	-	3529	-	52	1.7	1
23WIHV	92	82	-	-	-	-	3488	-	47	0	1
WINTER PEAS											
Frostmaster	89	63	-	-	-	1859	1855	1863	40	0	2
WyoWinter	85	49	-	-	-	1725	1516	1934	52	0	3.3
Austrian (VNS)	88	57	-	-	-	1748	2576	920	62	3.3	2.7
Survivor	85	61	-	-	-	2786	3072	2500	48	0	1.7
Keystone	90	60	-	-	-	1680	2437	923	48	0	2.3
Doudlah Diehard	90	59	-	-	-	-	1990	-	62	0	3
Canandaigua	89	60	-	-	-	-	1405	-	58	0	4

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 27 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	96	97	-	-	-	-	7917	-	136	7	1
Wrens Abruzzi	97	99	-	-	-	6483	7574	5392	143	12	1
NC20-R109	96	99	-	-	-	6230	6559	5900	142	18	1
ND Gardner	70	90	-	-	-	7877	9017	6736	145	28	1
Elbon	98	98	-	-	-	7097	7309	6884	143	57	1
Wheeler	95	99	-	-	-	-	7574	-	133	0	1
Aroostook	97	99	-	-	-	-	6052	-	140	50	1
WINTER CANOLA											
CP1066WC	85	86	-	-	-	5356	6808	3903	132	100	1
Torrington	85	87	-	-	-	5140	6176	4103	138	100	1
KS 4989	87	87	-	-	-	4776	6454	3097	133	100	1
Trophy	74	73	-	-	-	-	7272	-	128	100	1.3
RADISH											
Aerifi	96	0	2359	2134	2584	0	0	0	-	-	1*
Driller	95	0	2552	2119	2985	0	0	0	-	-	1*
FragiBlaster	96	0	-	2225	-	-	0	-	-	-	1*

*Measurement is from fall 2025

Highlights:

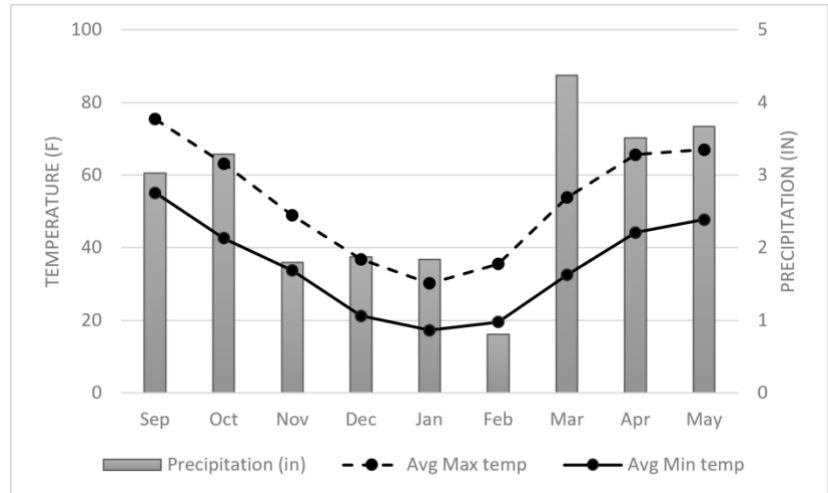
- Winter canola produced almost as much spring biomass as cereal rye this year. Crimson clover surpassed vetch for spring biomass in some cases, but still was not as effective at controlling weeds.
- Survivor winter peas had the best spring biomass two years in a row, along with superior weed control.
- Heusers Ostaat crimson clover had the highest 2-year spring biomass average, but Dixie and Kentucky Pride offered the best weed control of all the clovers while still producing substantial biomass.
- Purple Bounty has done consistently well in the heavier soils here.
- Despite lower fall/spring stand ratings than other rye varieties, ND Gardner had the highest 2-year biomass average, with consistent performance.



PENNSYLVANIA

(State College)

Soil texture: Loam
 Soil quality: Average
 Previous crop: Broadleaf
 Fall planting: 9/2/25
 Method: Drilled
 Biomass–fall: 11/4/25
 Biomass–spring: 5/5/26
 Fertilizer: None
 Irrigation: None
 Termination: Mow



Other notes: The trial was planted into ample soil moisture, but was followed by a dry fall. Winter brought frequent freeze-thaw cycles, and spring conditions were unusually dry.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 5 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	80	90	-	-	-	3003	3837	2168	39	2	1.7
Dixie	82	92	-	-	-	2350	3657	1042	40	0	1.7
Huesers Ostaat	70	85	-	-	-	3236	3856	2615	36	0	1.7
Kentucky Pride	75	88	-	-	-	3205	4421	1989	39	0	1
19MDCC	62	82	-	-	-	1957	3304	610	39	2	1.3
<i>BALANSA</i>											
Fixation	13	29	-	-	-	-	1824	-	39	0	2.7
Viper	0	3	-	-	-	-	173	-	19	0	4.7
HAIRY VETCH											
Purple Bounty	73	62	-	-	-	2476	2864	2087	47	7	1
20MDHV-soft	92	95	-	-	-	3248	2584	3911	42	1.7	1
Purple Reign	80	75	-	-	-	2909	2201	3616	51	7	1.3
AU Merit	87	84	-	-	-	3239	2325	4152	42	10	1.7
19NCEHV	82	92	-	-	-	3188	2515	3860	49	5	1
22NYHV	83	97	-	-	-	-	2412	-	45	17	1.3
23WIHV	85	88	-	-	-	-	2409	-	49	13	2
WINTER PEAS											
Frostmaster	78	5	-	-	-	358	334	381	28	0	5
WyoWinter	78	36	-	-	-	2101	1897	2304	41	0	2.7
Austrian (VNS)	82	43	-	-	-	1816	1992	1640	37	0	1.7
Survivor	82	50	-	-	-	2334	2450	2217	35	0	1.7
Keystone	59	24	-	-	-	610	916	303	24	0	4
Doudlah Diehard	85	38	-	-	-	-	1654	-	35	0	3.3
Canandaigua	90	55	-	-	-	-	1597	-	33	0	2.3

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 5 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	98	93	-	-	-	-	6429	-	92	0	1
Wrens Abruzzi	97	90	-	-	-	6241	6756	5726	110	0	1
NC20-R109	93	92	-	-	-	5856	4889	6823	102	0	1
ND Gardner	58	80	-	-	-	6271	7220	5322	110	0	1
Elbon	97	94	-	-	-	5297	4824	5770	105	0	1
Wheeler	95	92	-	-	-	-	4263	-	91	0	1
Aroostook	97	95	-	-	-	-	4824	-	107	0	1
WINTER CANOLA											
CP1066WC	78	77	-	-	-	4864	4923	4804	100	100	1.3
Torrington	88	81	-	-	-	4897	4167	5627	87	97	1
KS 4989	63	77	-	-	-	5048	4508	5588	102	98	1
Trophy	75	82	-	-	-	-	4102	-	91	100	1
RADISH											
Aerifi	82	2	-	2004	-	0	0	0	-	-	5
Driller	85	2	-	2123	-	0	0	0	-	-	5
FragiBlaster	72	2	-	2106	-	-	0	-	-	-	5

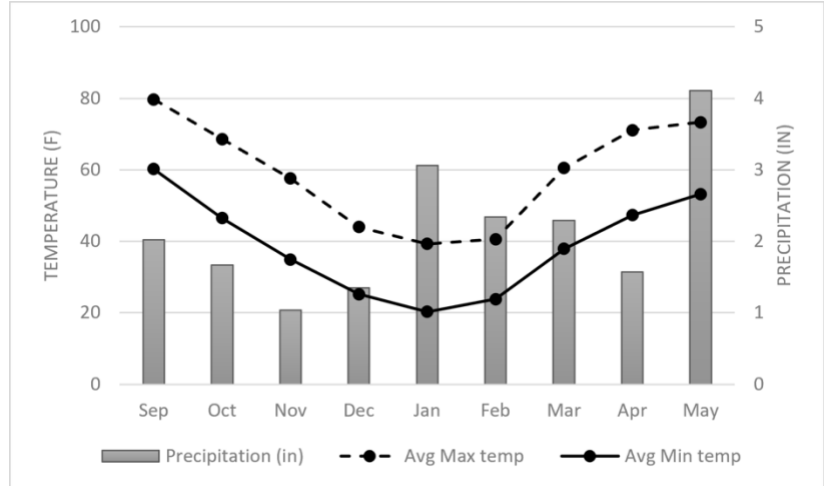
Highlights:

- Crimson clover performed very well this year, with Kentucky Pride and Heusers Ostaat emerging as reliable overwintering options with high biomass, though Kentucky Pride had slightly better weed control.
- All vetch varieties performed well.
- Survivor winter peas had the highest 2-year spring biomass average for peas with consistent performance and good weed control.
- Despite lower fall/spring stand ratings than other rye varieties, ND Gardner had significantly higher spring biomass this season than the rest of the rye varieties and the highest 2-year biomass average.



MARYLAND (Beltsville)

Soil texture: Loamy sand
 Fall planting: 10/3/25
 Method: Drilled
 Biomass–fall: NA
 Biomass–spring: 5/20/26
 Fertilizer: None
 Irrigation: None
 Previous crop: Fallow



Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 20 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	73	100	-	-	-	10487	20272	701	55	100	1
Dixie	87	100	-	-	-	10291	19701	880	55	100	1
Huesers Ostaat	90	100	-	-	-	12542	24198	886	53	100	1.3
Kentucky Pride	83	97	-	-	-	10878	20653	1102	52	100	1.3
19MDCC	92	100	-	-	-	12188	23674	702	35	100	1
<i>BALANSA</i>											
Fixation	83	77	-	-	-	-	9137	-	47	100	1.7
Viper	77	90	-	-	-	-	10826	-	37	100	1.3
HAIRY VETCH											
Purple Bounty	53	87	-	-	-	7924	15156	691	93	100	1
20MDHV-soft	70	87	-	-	-	11730	21819	1640	80	90	1
Purple Reign	57	80	-	-	-	6711	11254	2168	83	93	2
AU Merit	66	93	-	-	-	8161	14347	1974	78	97	2
19NCEHV	67	77	-	-	-	10989	19796	2181	83	90	1
22NYHV	53	97	-	-	-	-	13110	-	83	100	1
23WIHV	67	93	-	-	-	-	15109	-	90	93	1
WINTER PEAS											
Frostmaster	80	90	-	-	-	9649	17750	1547	98	100	1
WyoWinter	70	90	-	-	-	7668	14062	1274	87	100	1.3
Austrian (VNS)	80	100	-	-	-	7154	12944	1363	93	97	1.3
Survivor	75	100	-	-	-	6040	10564	1516	80	33	1.3
Keystone	73	100	-	-	-	6102	11088	1116	78	100	1.3
Doudlah Diehard	73	87	-	-	-	-	17821	-	97	100	1.3
Canandaigua	70	100	-	-	-	-	11302	-	93	90	1.3

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 20 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	100	100	-	-	-	-	11730	-	172	100	1
Wrens Abruzzi	100	100	-	-	-	14115	19273	8957	168	100	1
NC20-R109	100	100	-	-	-	10161	13491	6830	162	100	1
ND Gardner	50	70	-	-	-	13825	23865	3784	168	100	1.3
Elbon	100	100	-	-	-	14892	22294	7489	162	100	1
Wheeler	100	100	-	-	-	-	20676	-	182	100	1
Aroostook	100	100	-	-	-	-	8708	-	163	100	1
WINTER CANOLA											
CP1066WC	83	100	-	-	-	6107	11944	270	143	100	1
Torrington	80	100	-	-	-	5724	11397	51	138	100	1
KS 4989	87	100	-	-	-	3815	7566	643	150	100	1
Trophy	75	100	-	-	-	-	13372	-	140	97	1.3
RADISH											
Aerifi	98	83	-	-	-	6066	12135	0	75	83	2.3
Driller	97	63	-	-	-	8066	16132	0	75	67	2.31
FragiBlaster	93	93	-	-	-	-	7566	-	92	93	1

Highlights:

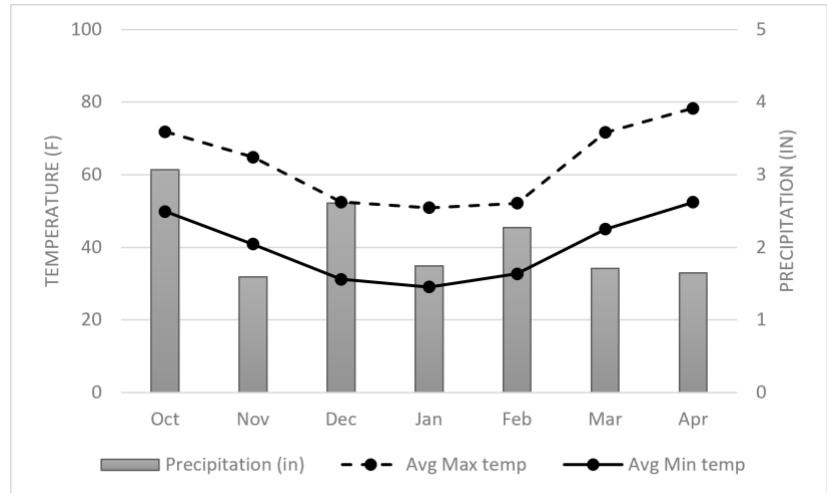
- Trial had a much longer growing season compared to last year, which resulted in higher biomass.
- Huesers Ostaat had the highest 2-yr biomass average, but Kentucky Pride has more consistent performance.
- 20MDHV-soft vetch shows consistently good biomass and weed control, and is part of CCB Network efforts to develop soft-seeded varieties. On the other hand, Purple Reign appears poorly suited to this site.
- Doudlah Diehard winter pea was the top performer this season, but has only been tested for one year. Of varieties that have two years of trial data, Frostmaster had the highest 2-year biomass average and the best weed control for the 2025-26 season.
- Elbon and Wrens Abruzzi rye performed well for biomass and weed control in both years, while Aroostook rye did not excel in this environment.



NORTH CAROLINA

(Rocky Mount)

Soil texture: Loamy sand
 Topography: Flat
 Previous crop: Corn
 Fall planting: 10/10/25
 Method: Drilled
 Biomass–fall: NA
 Biomass–spring: 4/14/26
 Fertilizer: Rye – 50 lbs spring N
 Brassicas – 30 lbs
 spring N
 Irrigation: None



Other notes: Residual herbicides may have hindered cover crop emergence in the fall, especially for clovers and brassicas, but by spring plots were growing well. A perimeter fence was added in January to reduce herbivory.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on April 14 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
CRIMSON											
17MDCC-soft	22	-	-	-	-	1325	0	2649	60	100	1
Dixie	70	-	-	-	-	4037	5710	2364	66	100	1
Huesers Ostaat	53	-	-	-	-	2616	2558	2674	59	100	1.5
Kentucky Pride	55	-	-	-	-	4104	4378	3829	60	100	1
19MDCC	33	-	-	-	-	2446	2094	2798	55	100	1
BALANSA											
Fixation	0	-	-	-	-	-	0	-	-	-	-
Viper	0	-	-	-	-	-	1547	-	-	-	-
HAIRY VETCH											
Purple Bounty	63	-	-	-	-	7858	11433	4283	65	85	1
20MDHV-soft	80	-	-	-	-	6670	6936	6403	60	28	1
Purple Reign	63	-	-	-	-	9999	10993	9005	57	22	1
AU Merit	93	-	-	-	-	8445	11909	4980	65	45	1
19NCEHV	80	-	-	-	-	8622	10731	6513	58	55	1
22NYHV	67	-	-	-	-	-	10457	-	68	45	1
23WIHV	73	-	-	-	-	-	7578	-	55	17	1
WINTER PEAS											
Frostmaster	97	-	-	-	-	6458	8637	4279	79	47	1
WyoWinter	97	-	-	-	-	5509	4509	6507	60	6	1
Austrian (VNS)	93	-	-	-	-	6103	6460	5745	59	9	1
Survivor	97	-	-	-	-	5894	5853	5935	65	1	1
Keystone	90	-	-	-	-	5819	5782	5856	64	53	1
Doudlah Diehard	100	-	-	-	-	-	7209	-	81	35	1
Canandaigua	93	-	-	-	-	-	6804	-	64	21	1

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on April 14 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	77	-	-	-	-	-	2498	-	68	7.5	3
Wrens Abruzzi	100	-	-	-	-	5177	6864	3489	152	100	1
NC20-R109	60	-	-	-	-	2993	2903	3082	110	75	1
ND Gardner	67	-	-	-	-	3765	5020	2509	115	100	1
Elbon	73	-	-	-	-	5793	6103	5483	137	95	2.3
Wheeler	60	-	-	-	-	-	3010	-	88	5	1
Aroostook	100	-	-	-	-	-	6222	-	155	100	1
WINTER CANOLA											
CP1066WC	33	-	-	-	-	1768	2475	1060	125	100	1
Torrington	5	-	-	-	-	364	0	727	0	-	-
KS 4989	3	-	-	-	-	501	0	1002	0	-	-
Trophy	18	-	-	-	-	-	1297	-	120	100	1
RADISH											
Aerifi	0	-	-	-	-	451	0	901	0	-	-
Driller	60	-	-	-	-	2242	3521	962	76	100	1
FragiBlaster	23	-	-	-	-	-	1618	-	63	100	1

Highlights:

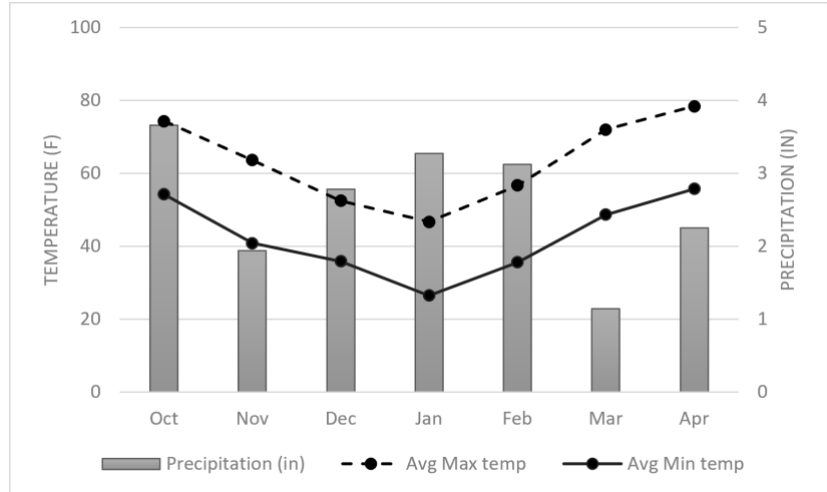
- Dixie produced significantly more biomass than the other clover varieties this season, but is roughly tied with Kentucky Pride for the highest 2-year biomass average.
- Purple Bounty vetch shows significantly earlier maturity than other vetch varieties.
- Frostmaster peas had the highest biomass this season, as well as the highest 2-year biomass average, but Survivor and Keystone had more consistent performance across both seasons. Frostmaster and Keystone had significantly earlier maturity than other varieties.
- Wrens Abruzzi and Elbon rye stand out as strong performers for the southeastern region.
- Driller radish did well in both years.



Cereal rye allelopathy trials in North Carolina.

TENNESSEE (Nashville)

Soil texture: Silt loam
 Soil quality: Rich
 Previous crop: Winter wheat
 Fall planting: 10/15/25
 Method: Drilled
 Biomass–fall: 11/11/25
 Biomass–spring: 4/30/26
 Fertilizer: None
 Irrigation: ½" after planting
 Termination: Mow



Other notes: No brassica trial at this site. Because soil moisture was low at planting, a small amount of irrigation was applied to promote establishment. Both fall and spring were abnormally warm, and winter brought frequent freeze-thaw cycles. This site faced both disease and weed pressure.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on April 30 (%)	Weed pressure (1-5)	Disease pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025				
CLOVERS												
<i>CRIMSON</i>												
17MDCC-soft	95	93	-	-	-	5959	5612	6305	52	100	1.7	1
Dixie	93	99	-	-	-	5005	5656	4354	55	100	2.3	1
Huesers Ostaat	97	99	-	-	-	4811	6004	3617	52	100	2	1
Kentucky Pride	92	90	-	-	-	4869	5872	3866	60	98	2.3	1
19MDCC	95	96	-	-	-	6019	4686	7352	56	100	1.3	1
<i>BALANSA</i>												
Fixation	13	25	-	-	-	-	1361	-	52	100	4.3	1
Viper	18	37	-	-	-	-	1662	-	47	100	4.7	1
HAIRY VETCH												
Purple Bounty	91	88	-	-	-	4608	4826	4390	56	100	1	1
20MDHV-soft	93	95	-	-	-	5135	6676	3593	61	95	1	1
Purple Reign	89	91	-	-	-	3989	4884	3093	73	98	1	1
AU Merit	94	95	-	-	-	4964	6013	3914	67	100	1	1
19NCEHV	88	96	-	-	-	4935	6575	3295	65	98	1	1
22NYHV	89	98	-	-	-	-	7102	-	60	100	1	1
23WIHV	89	86	-	-	-	-	5513	-	70	100	1	1
WINTER PEAS												
Frostmaster	91	80	-	-	-	4486	5997	2974	69	86	1	3.3
WyoWinter	93	86	-	-	-	3613	4740	2486	58	61	1.7	1.7
Austrian (VNS)	88	87	-	-	-	3554	5264	1844	61	48	1	2
Survivor	87	85	-	-	-	3613	4942	2284	60	7	1	1.7
Keystone	84	70	-	-	-	3488	3347	3628	66	96	2	1.3
Doudlah Diehard	95	72	-	-	-	-	3947	-	66	47	2.3	2
Canandaigua	75	68	-	-	-	-	3526	-	66	64	2.7	2.3

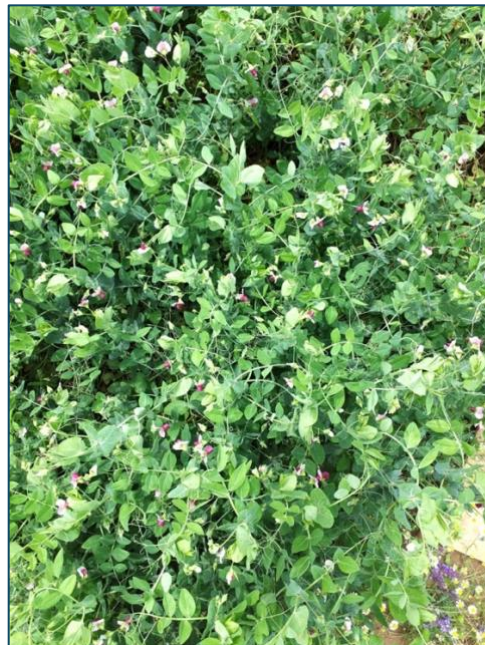
Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on April 30 (%)	Weed pressure (1-5)	Disease pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025				
CEREAL RYE												
Hazlet	89	88	-	-	-	-	4242	-	92	81	1.7	1.7
Wrens Abruzzi	92	91	-	-	-	7409	5276	9541	140	99	1.7	1
NC20-R109	94	88	-	-	-	5744	4624	6864	139	63	2.7	1.3
ND Gardner	14	8	-	-	-	3473	1116	5829	130	76	4.7	1.3
Elbon	89	90	-	-	-	6742	3740	9743	124	97	1.7	1.7
Wheeler	94	91	-	-	-	-	3476	-	120	93	1	2.7
Aroostook	96	95	-	-	-	-	8340	-	143	98	1	2
WINTER CANOLA												
CP1066WC	-	-	-	-	-	-	-	-	-	-	-	-
Torrington	-	-	-	-	-	-	-	-	-	-	-	-
KS 4989	-	-	-	-	-	-	-	-	-	-	-	-
Trophy	-	-	-	-	-	-	-	-	-	-	-	-
RADISH												
Aerifi	-	-	-	-	-	-	-	-	-	-	-	-
Driller	-	-	-	-	-	-	-	-	-	-	-	-
FragiBlaster	-	-	-	-	-	-	-	-	-	-	-	-

Highlights:

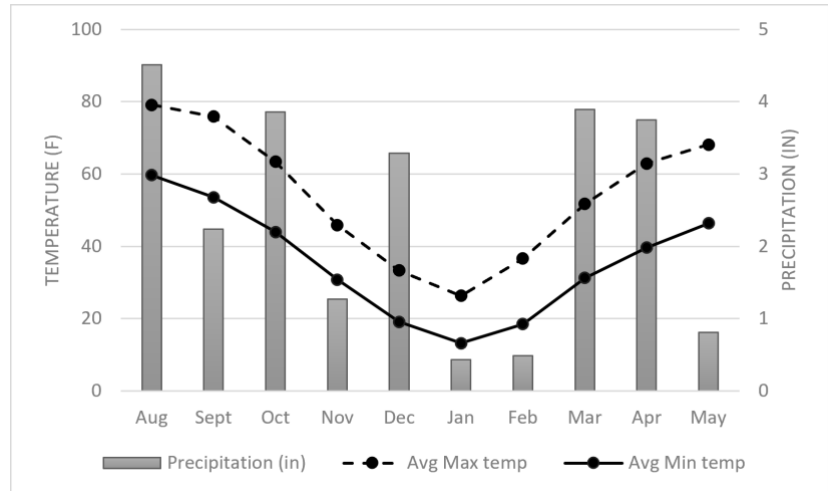
- 19MDCC clover had the highest 2-year spring biomass average and the best weed control.
- All vetch varieties have done well in TN, but 20MDHV-soft has the highest 2-year spring biomass average.
- Frostmaster peas had the highest 2-year spring biomass average, but were susceptible to disease. Keystone offers reliable biomass production and greater disease resistance. Frostmaster and Keystone both show relatively early maturity, while Survivor has significantly later maturity.
- Wrens Abruzzi rye had the highest 2-year spring biomass average, followed by Elbon, but Wrens Abruzzi has slightly better disease resistance than Elbon. Aroostook also shows promise for high biomass production.



See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

MICHIGAN (Hickory Corners)

Soil texture: Sandy loam
 Soil quality: Average
 Topography: Flat
 Previous crop: Winter barley
 Fall planting: 8/26/25
 Method: Drilled
 Biomass–fall: 10/10/25
 Biomass–spring: 5/11/26
 Fertilizer: None
 Irrigation: None
 Termination: Mow + tillage



Other notes: The trial was planted into adequate soil moisture for establishment, followed by a dry fall. There was snow cover throughout much of the winter, and then wet conditions continued into the spring. Volunteer barley was prevalent across nearly all plots.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 11 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	57	90	-	-	-	-	3626	-	42	3	2
Dixie	67	93	-	-	-	-	3650	-	45	0	2
Huesers Ostaat	57	90	-	-	-	-	3606	-	42	0	2.3
Kentucky Pride	72	97	-	-	-	-	4648	-	43	3	1.7
19MDCC	47	80	-	-	-	-	3379	-	44	0	2.3
<i>BALANSA</i>											
Fixation	22	78	-	-	-	-	2346	-	46	0	2.3
Viper	17	52	-	-	-	-	1746	-	33	50	3.7
HAIRY VETCH											
Purple Bounty	52	100	-	-	-	-	3889	-	60	0	1.7
20MDHV-soft	67	100	-	-	-	-	4376	-	52	0	1.7
Purple Reign	60	100	-	-	-	-	3993	-	58	0	1.7
AU Merit	60	97	-	-	-	-	2672	-	48	0	2
19NCEHV	77	100	-	-	-	-	3897	-	47	0	1.7
22NYHV	67	100	-	-	-	-	3648	-	50	0	2.3
23WIHV	57	100	-	-	-	-	3492	-	47	0	1
WINTER PEAS											
Frostmaster	43	10	-	-	-	-	176	-	35	0	4.7
WyoWinter	77	64	-	-	-	-	1523	-	41	0	3.7
Austrian (VNS)	67	40	-	-	-	-	764	-	43	0	4
Survivor	67	57	-	-	-	-	1876	-	42	0	3.3
Keystone	40	8	-	-	-	-	131	-	27	0	5
Doudlah Diehard	58	52	-	-	-	-	1258	-	42	0	4.7
Canandaigua	52	42	-	-	-	-	1641	-	43	0	4.3

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 11 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	100	100	-	-	-	-	4878	-	80	Boot stage	1
Wrens Abruzzi	100	100	-	-	-	-	5829	-	114	Head emerged	1
NC20-R109	100	93	-	-	-	-	4341	-	104	Head emerged	1.3
ND Gardner	100	97	-	-	-	-	5124	-	106	Head emerged	1
Elbon	100	100	-	-	-	-	5537	-	117	Head emerged	1
Wheeler	100	100	-	-	-	-	3736	-	79	Boot stage	1
Aroostook	100	100	-	-	-	-	4393	-	113	Head emerged	1
WINTER CANOLA											
CP1066WC	77	74	-	-	-	-	1782	-	74	77	2.7
Torrington	80	54	-	-	-	-	1398	-	71	33	2
KS 4989	87	54	-	-	-	-	1243	-	74	62	2
Trophy	63	57	-	-	-	-	1316	-	80	52	2
RADISH											
Aerifi	100	0	-	3032	-	-	0	-	36*	-	1*
Driller	90	0	-	2456	-	-	0	-	32*	-	1*
FragiBlaster	97	0	-	2440	-	-	0	-	37*	-	1*

*Measurement is from fall 2025

Highlights:

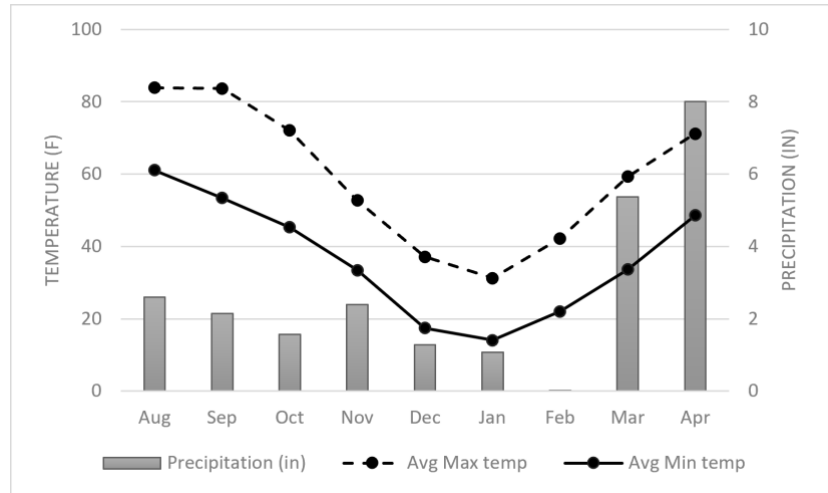
- Kentucky Pride had the best biomass production and weed control of all the clovers.
- All vetch varieties generally did well except AU Merit, which had poor performance for nearly all metrics.
- Survivor peas had the best biomass and weed control, though the winter peas in general had more weeds than any other species. Frostmaster and Keystone were poorly adapted to this site.
- Wrens Abruzzi and Elbon rye were the tallest and most productive rye varieties.
- For radishes, although not statistically significant, Aerifi shows a slight performance advantage.



See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

INDIANA (West Lafayette)

Soil texture: Silty clay loam
 Soil quality: Average
 Topography: Flat
 Previous crop: Fallow
 Fall planting: 8/25/25
 Method: Drilled
 Biomass–fall: 10/22/25
 Biomass–spring: 4/13/26
 Fertilizer: None
 Irrigation: None



Other notes: Fall conditions were unusually warm, followed by a colder than average winter with frequent freeze-thaw cycles. Spring weather was somewhat volatile, fluctuating between very cold and very warm temperatures.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on April 28 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	75	85	-	-	-	1390	2453	327	9	93	2
Dixie	80	58	-	-	-	970	1601	339	7	100	2.8
Huesers Ostaat	75	67	-	-	-	1418	2050	785	8	100	2.2
Kentucky Pride	85	93	-	-	-	2060	3114	1005	10	93	1.5
19MDCC	90	75	-	-	-	936	1828	43	7	100	2
<i>BALANSA</i>											
Fixation	42	83	-	-	-	-	2261	-	11	12	2.3
Viper	50	42	-	-	-	-	1074	-	7	100	2.5
HAIRY VETCH											
Purple Bounty	97	100	-	-	-	1484	2622	346	17	1	1
20MDHV-soft	100	100	-	-	-	2261	2903	1618	17	0	1
Purple Reign	100	100	-	-	-	2069	2650	1487	15	0	1
AU Merit	100	50	-	-	-	769	1169	369	8	0	1
19NCEHV	100	100	-	-	-	2090	3008	1171	17.5	7	1
22NYHV	100	100	-	-	-	-	2818	-	16	1	1
23WIHV	100	100	-	-	-	-	2983	-	15	0	1
WINTER PEAS											
Frostmaster	85	0	2304	3654	954	0	0	0	53*	-	-
WyoWinter	80	0	1921	3166	676	0	0	0	31*	-	-
Austrian (VNS)	90	0	1706	2850	561	0	0	0	43*	-	-
Survivor	90	0	1747	2965	529	0	0	0	33*	-	-
Keystone	93	0	1723	2838	607	0	0	0	39*	-	-
Doudlah Diehard	72	0	-	2692	-	-	0	-	35*	-	-
Canandaigua	90	0	-	2476	-	-	0	-	33*	-	-

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on April 28 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	100	100	-	-	-	-	3567	-	20	0	1
Wrens Abruzzi	100	100	-	-	-	3545	3706	3384	29	13	1
NC20-R109	97	90	-	-	-	2267	2524	2010	22	4	1
ND Gardner	100	100	-	-	-	3532	3537	3526	26	7	1
Elbon	100	100	-	-	-	3374	3816	2931	30	17	1
Wheeler	100	100	-	-	-	-	2927	-	23	0	1
Aroostook	100	100	-	-	-	-	3642	-	27	20	1
WINTER CANOLA											
CP1066WC	77	58	2882	3489	2275	2197	3489	904	20	2.7	1
Torrington	75	33	2127	3198	1056	1254	1747	761	27	30	1
KS 4989	85	75	2455	3561	1349	2215	3300	1129	25	12	1
Trophy	80	20	-	3005	-	-	686	-	10	4	1
RADISH											
Aerifi	80	0	3791	5305	2276	0	0	0	47*	-	1
Driller	75	0	3638	4389	2887	0	0	0	47*	-	1
FragiBlaster	90	0	-	4137	-	-	0	-	50*	-	1.2

*Measurement is from fall 2025

Highlights:

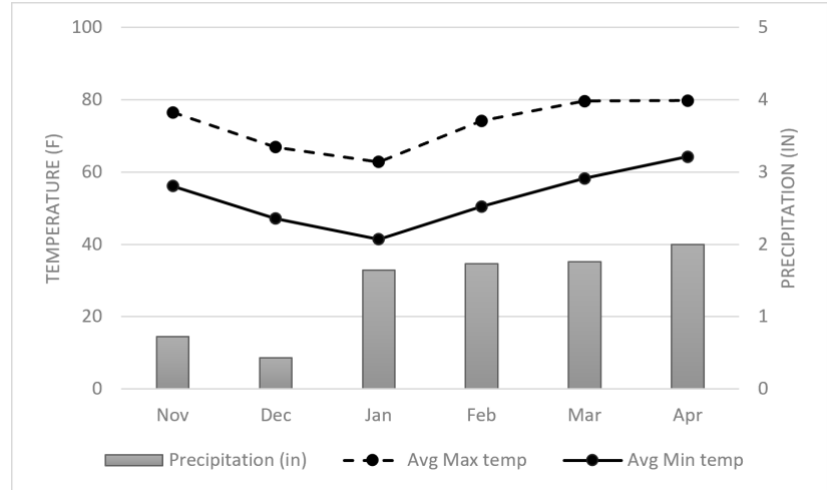
- Kentucky Pride crimson clover showed strong performance two years in a row, with the highest 2-year spring biomass average and best weed control.
- 20MDHV-soft vetch did well both years with the highest two-year spring biomass average. In general, all vetch varieties performed well here except AU Merit, and Purple Bounty shows some interannual variability.
- Peas failed to survive the winter two years in a row. In the fall, Frostmaster has produced the most biomass.
- Wrens Abruzzi, ND Gardner, Elbon, and Aroostook had the best biomass production, driven by early maturity.
- Winter canola survived the winter in both years and produced substantial biomass, especially CP1066 and KS 4989. CP1066WC and Trophy appear to have later maturity.
- Radishes produced a tremendous amount of fall biomass and their residue suppressed weeds in the spring.



See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

TEXAS (College Station)

Soil texture: Belk clay
 Topography: Flat
 Fall planting: 11/30/25
 Method: Drilled
 Biomass–fall: NA
 Biomass–spring: April



Other notes: Statistical analyses were not performed for the 2025-2026 pea data due to missing replicates.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	90	65	-	-	-	4133	2134	6132	4	-	2.7
Dixie	88	67	-	-	-	2733	2429	3037	4	-	2.3
Huesers Ostaat	88	53	-	-	-	2575	2078	3072	3	-	2.7
Kentucky Pride	83	70	-	-	-	3225	2195	4254	4	-	2.3
19MDCC	92	65	-	-	-	5200	2328	8071	5	-	3
<i>BALANSA</i>											
Fixation	27	6	-	-	-	-	1642	-	2	-	3.7
Viper	8	3	-	-	-	-	1815	-	2	-	4.7
HAIRY VETCH											
Purple Bounty	78	82	-	-	-	5768	3719	7817	20	-	1
20MDHV-soft	87	89	-	-	-	4363	3774	4951	22	-	1
Purple Reign	87	91	-	-	-	6716	4698	8733	26	-	1
AU Merit	85	95	-	-	-	6589	4830	8347	35	-	1
19NCEHV	78	90	-	-	-	4634	3680	5588	24	-	1
22NYHV	77	67	-	-	-	-	3702	-	15	-	1.7
23WIHV	85	84	-	-	-	-	3733	-	18	-	1
WINTER PEAS											
Frostmaster	90	64	-	-	-	10373	2680	18065	22	-	1
WyoWinter	90	82	-	-	-	11482	3322	19641	31	-	1
Austrian (VNS)	95	72	-	-	-	8569	3105	14033	29	-	1
Survivor	72.5	79	-	-	-	5691	3153	8229	30	-	1
Keystone	90	63	-	-	-	7375	2961	11789	31	-	2
Doudlah Diehard	95	55	-	-	-	-	2274	-	22	-	3
Canandaigua	75	52	-	-	-	-	3570	-	27	-	1

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	97	91	-	-	-	-	1903	-	13	-	1
Wrens Abruzzi	95	91	-	-	-	10633	2617	18649	22	-	1
NC20-R109	90	86	-	-	-	11804	2933	20674	27	-	1
ND Gardner	68	68	-	-	-	5795	2304	9285	16	-	1.7
Elbon	97	92	-	-	-	12974	2433	23515	24	-	1
Wheeler	93	89	-	-	-	-	1990	-	21	-	1.7
Aroostook	83	90	-	-	-	-	2251	-	21	-	1
WINTER CANOLA											
CP1066WC	80	72	-	-	-	19939	2463	37415	17	-	1.3
Torrington	68	48	-	-	-	20663	2476	38850	12	-	2.3
KS 4989	73	56	-	-	-	11968	2395	21541	8	-	2
Trophy	68	46	-	-	-	-	3198	-	17	-	2
RADISH											
Aerifi	80	54	-	-	-	1806	1980	1631	13	-	3.3
Driller	88	59	-	-	-	3492	3262	3722	33	-	2.7
FragiBlaster	90	41	-	-	-	-	3027	-	28	-	3

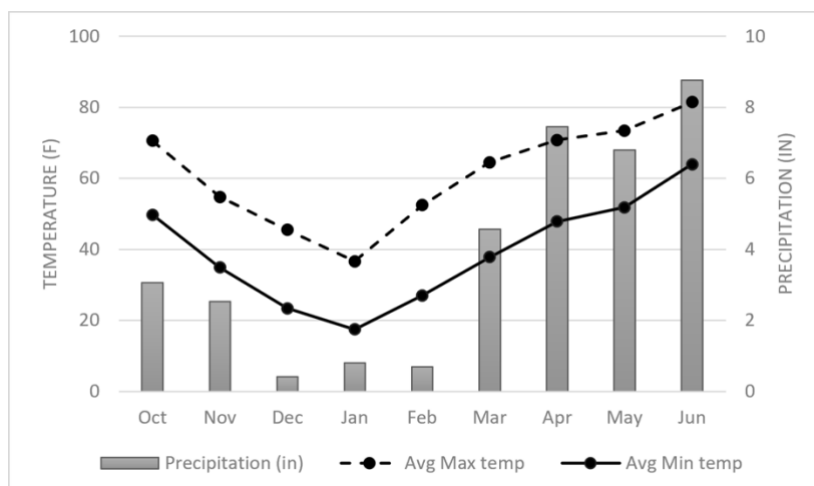
Highlights:

- The trial had a shorter growing season than last year, resulting in very different biomass quantities between the two years.
- Crimson clover performance was somewhat variable across the two trial years.
- For vetch and peas, all varieties have performed reasonably well.
- Wrens Abruzzi, Elbon, and NC20-R109 rye varieties all performed well.
- CP1066WC winter canola had excellent biomass both years and had the lowest weed pressure.
- Driller radish has shown good performance in both years.



MISSOURI (Columbia)

Soil texture: Silt loam
 Soil quality: Average
 Topography: Flat
 Previous crop: Corn
 Fall planting: 10/12/25
 Method: Drilled
 Biomass–fall: NA
 Biomass–spring: 5/14/26
 Fertilizer: None
 Irrigation: None
 Termination: Mow + tillage



Other notes: Clover and brassica emergence was poor overall, likely due to residual herbicide effects. Fall conditions were dry, and winter lacked consistent snow cover. Spring was cooler and wetter than usual.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	54	26	-	-	-	1545	632	2457	-	-	-
Dixie	63	15	-	-	-	1662	383	2740	-	-	-
Huesers Ostaat	63	16	-	-	-	1185	258	2111	-	-	-
Kentucky Pride	56	48	-	-	-	1982	1024	2939	-	-	-
19MDCC	53	9	-	-	-	1216	100	2331	-	-	-
<i>BALANSA</i>											
Fixation	30	11	-	-	-	-	527	-	-	-	-
Viper	3	0	-	-	-	-	0	-	-	-	-
HAIRY VETCH											
Purple Bounty	64	77	-	-	-	2907	2373	3440	-	-	-
20MDHV-soft	68	83	-	-	-	3096	2650	3541	-	-	-
Purple Reign	49	82	-	-	-	2548	2222	2874	-	-	-
AU Merit	65	64	-	-	-	2464	1480	3448	-	-	-
19NCEHV	69	86	-	-	-	2091	1576	2606	-	-	-
22NYHV	58	89	-	-	-	-	2906	-	-	-	-
23WIHV	66	82	-	-	-	-	2316	-	-	-	-
WINTER PEAS											
Frostmaster	85	52	-	-	-	2088	1898	2277	-	-	-
WyoWinter	78	76	-	-	-	2102	1865	2338	-	-	-
Austrian (VNS)	83	76	-	-	-	2490	2295	2684	-	-	-
Survivor	79	81	-	-	-	2242	2058	2425	-	-	-
Keystone	71	14	-	-	-	1589	536	2642	-	-	-
Doudlah Diehard	80	76	-	-	-	-	2500	-	-	-	-
Canandaigua	81	76	-	-	-	-	2103	-	-	-	-

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	90	93	-	-	-	-	3712	-	-	-	-
Wrens Abruzzi	94	96	-	-	-	5972	5691	6252	-	-	-
NC20-R109	89	96	-	-	-	5258	4494	6021	-	-	-
ND Gardner	2	23	-	-	-	4457	3280	5633	-	-	-
Elbon	87	95	-	-	-	6312	5999	6624	-	-	-
Wheeler	98	93	-	-	-	-	5756	-	-	-	-
Aroostook	97	98	-	-	-	-	4373	-	-	-	-
WINTER CANOLA											
CP1066WC	45	0	-	-	-	2067	0	4134	-	-	-
Torrington	40	0	-	-	-	2469	0	4938	-	-	-
KS 4989	47	0	-	-	-	2903	0	5806	-	-	-
Trophy	58	0	-	-	-	-	0	-	-	-	-
RADISH											
Aerifi	70	0	-	-	-	0	0	0	-	-	-
Driller	61	0	-	-	-	0	0	0	-	-	-
FragiBlaster	59	0	-	-	-	-	0	-	-	-	-

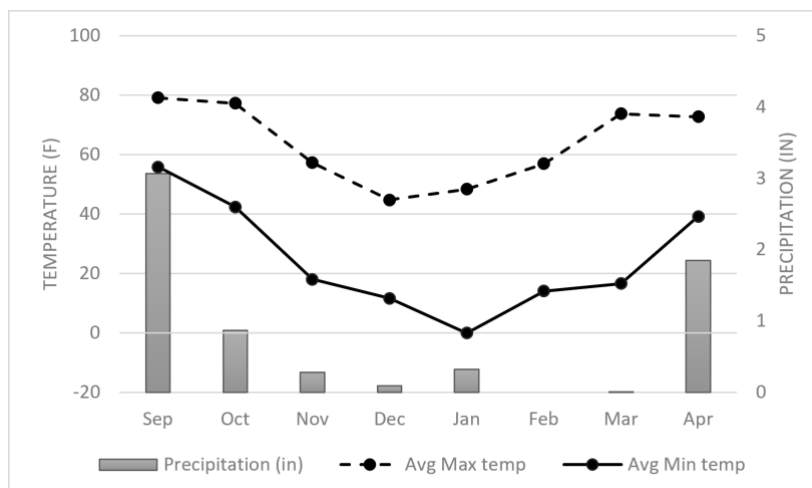
Highlights:

- Kentucky Pride performed well two years in a row, with good winter hardiness and the highest 2-year spring biomass average of all clovers.
- For vetch and peas, numerous varieties appear to be well adapted to this area.
- Elbon rye has been a consistent and productive performer.



NEBRASKA (Mead)

Soil texture: Silty clay loam
 Soil quality: Rich
 Topography: Flat
 Previous crop: Fallow
 Fall planting: 9/29/25
 Method: Drilled
 Biomass–fall: NA
 Biomass–spring: 5/13/26
 Fertilizer: None
 Irrigation: None
 Termination: Mow + disc
 Other notes: Very dry spring



Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 13 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	91	93	-	-	-	666	1263	68	31	100	-
Dixie	92	84	-	-	-	398	782	13	30	100	-
Huesers Ostaat	88	73	-	-	-	444	838	50	28	100	-
Kentucky Pride	88	95	-	-	-	553	1066	39	32	100	-
19MDCC	88	75	-	-	-	369	711	27	25	100	-
<i>BALANSA</i>											
Fixation	58	37	-	-	-	-	372	-	21	93	-
Viper	40	2	-	-	-	-	145	-	4	57	-
HAIRY VETCH											
Purple Bounty	80	80	-	-	-	444	794	94	35	70	-
20MDHV-soft	91	98	-	-	-	867	1367	366	38	87	-
Purple Reign	87	97	-	-	-	1110	1917	302	34	70	-
AU Merit	88	95	-	-	-	564	929	199	33	83	-
19NCEHV	91	97	-	-	-	894	1547	240	40	100	-
22NYHV	87	80	-	-	-	-	1145	-	31	70	-
23WIHV	90	90	-	-	-	-	942	-	38	80	-
WINTER PEAS											
Frostmaster	60	32	-	-	-	317	603	31	23	0	-
WyoWinter	88	83	-	-	-	800	1530	69	34	0	-
Austrian (VNS)	60	72	-	-	-	804	1379	228	33	0	-
Survivor	70	80	-	-	-	870	1556	183	35	0	-
Keystone	53	37	-	-	-	363	717	8	21	0	-
Doudlah Diehard	72	78	-	-	-	-	1240	-	32	0	-
Canandaigua	77	72	-	-	-	-	1593	-	36	7	-

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering on May 13 (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	99	100	-	-	-	-	4881	-	108	100	-
Wrens Abruzzi	74	83	-	-	-	4185	5027	3343	139	100	-
NC20-R109	99	100	-	-	-	3993	4322	3663	126	100	-
ND Gardner	53	87	-	-	-	4721	4838	4603	124	100	-
Elbon	61	63	-	-	-	4422	4653	4191	127	100	-
Wheeler	100	100	-	-	-	-	5075	-	108	100	-
Aroostook	100	100	-	-	-	-	5039	-	139	100	-
WINTER CANOLA											
CP1066WC	82	23	-	-	-	144	253	35	17	17	-
Torrington	65	7	-	-	-	60	93	26	13	17	-
KS 4989	70	14	-	-	-	88	131	45	15	17	-
Trophy	58	3	-	-	-	-	0	-	5	0	-
RADISH											
Aerifi	96	0	-	-	-	6	0	11	-	-	-
Driller	98	0	-	-	-	6	0	12	-	-	-
FragiBlaster	98	0	-	-	-	-	0	-	-	-	-

Highlights:

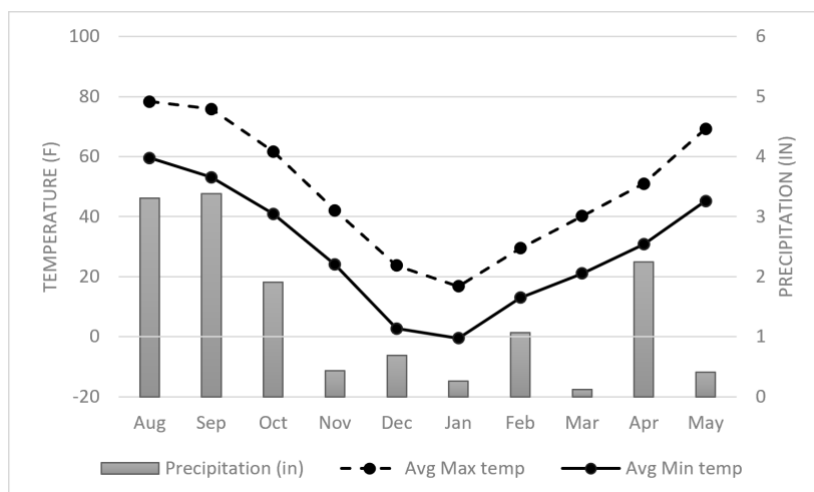
- Overall, the legumes overwintered more successfully this season due to an earlier planting date and produced more spring biomass with a later termination date.
- The best performing clovers were 17MDCC-soft and Kentucky Pride.
- Purple Reign hairy vetch was a top performer, while Purple Bounty, a smooth vetch variety, did poorly.
- All winter pea varieties have performed relatively well, though Survivor had the highest 2-year spring biomass average. Keystone and Frostmaster are not well adapted to this region.



See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

NORTH DAKOTA (Fargo)

Soil texture: Silty clay
 Soil quality: Average
 Topography: Flat
 Previous crop: Broadleaf
 Fall planting: 8/19/25
 Method: Drilled
 Biomass–fall: 11/22/25
 Biomass–spring: 5/13/26
 Fertilizer: None
 Irrigation: None
 Termination: Tillage



Other notes: No clover trial at this site. Trial was planted under relatively dry conditions, which persisted through the fall, winter, and spring. The site also faced substantial weed pressure.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
CRIMSON	-	-	-	-	-	-	-	-	-	-	-
17MDCC-soft	-	-	-	-	-	-	-	-	-	-	-
Dixie	-	-	-	-	-	-	-	-	-	-	-
Huesers Ostaat	-	-	-	-	-	-	-	-	-	-	-
Kentucky Pride	-	-	-	-	-	-	-	-	-	-	-
19MDCC	-	-	-	-	-	-	-	-	-	-	-
BALANSA	-	-	-	-	-	-	-	-	-	-	-
Fixation	-	-	-	-	-	-	-	-	-	-	-
Viper	-	-	-	-	-	-	-	-	-	-	-
HAIRY VETCH											
Purple Bounty	31	0	307	422	191	0	0	0	-	-	-
20MDHV-soft	50	0	442	369	515	0	0	0	-	-	-
Purple Reign	35	0	261	214	308	0	0	0	-	-	-
AU Merit	50	0	325	434	216	0	0	0	-	-	-
19NCEHV	42	0	248	321	174	0	0	0	-	-	-
22NYHV	34	0	-	202	-	0	0	0	-	-	-
23WIHV	47	0	-	601	-	0	0	0	-	-	-
WINTER PEAS											
Frostmaster	30	0	267	387	146	0	0	0	-	-	-
WyoWinter	35	0	424	464	384	0	0	0	-	-	-
Austrian (VNS)	22	0	206	351	61	0	0	0	-	-	-
Survivor	35	0	361	410	312	0	0	0	-	-	-
Keystone	21	0	233	387	78	0	0	0	-	-	-
Doudlah Diehard	40	0	-	654	-	0	0	0	-	-	-
Canandaigua	35	0	-	523	-	0	0	0	-	-	-

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	79	73	-	1083	-	-	3368	-	-	-	1
Wrens Abruzzi	77	48	783	785	780	1175	1689	660	-	-	1
NC20-R109	80	33	877	1190	564	910	1106	714	-	-	1
ND Gardner	67	52	1208	1041	1375	1943	2666	1219	-	-	1
Elbon	87	61	1109	1249	969	1471	2037	904	-	-	1
Wheeler	88	18	-	1195	-	-	968	-	-	-	1
Aroostook	87	37	-	1142	-	-	2785	-	-	-	1
WINTER CANOLA											
CP1066WC	71	0	1516	1826	1205	0	0	0	-	-	-
Torrington	67	0	-	1582	-	0	0	0	-	-	-
KS 4989	60	0	-	2564	-	0	0	0	-	-	-
Trophy	32	0	-	845	-	0	0	0	-	-	-
RADISH											
Aerifi	78	0	1356	1475	1237	0	0	0	-	-	-
Driller	70	0	1242	1303	1180	0	0	0	-	-	-
FragiBlaster	80	0	-	1892	-	0	0	0	-	-	-

Highlights:

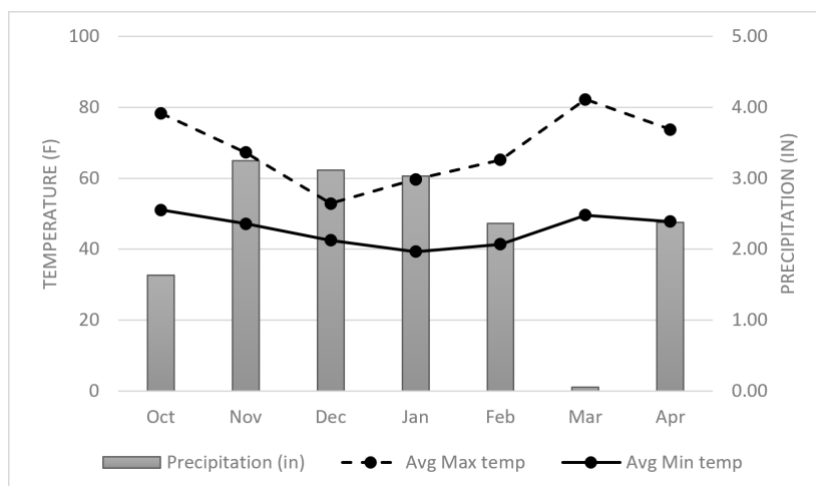
- Although all vetch varieties have done relatively well, 20MDHV-soft shows slightly higher and more consistent productivity across the two seasons.
- WyoWinter peas have shown a modest, though not statistically significant, performance advantage in both years. Doudlah Diehard and Canandaigua peas also did well during the 2025-26 season.
- ND Gardner rye, a variety developed specifically for the ND climate, excelled in both trial years. Hazlet also shows promise for success in ND.
- Radishes and winter canola are a great option for growing substantial fall biomass in ND.



See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.

CALIFORNIA (Davis)

Soil texture: Silt loam
 Soil quality: Rich
 Topography: Flat
 Previous crop: Fallow
 Fall planting: 10/31/25
 Method: Drilled
 Biomass–fall: NA
 Biomass–spring: 4/4/26
 Fertilizer: None
 Irrigation: None
 Termination: Mow



Other notes: Trial was planted into adequate soil moisture and had good establishment, but was followed by an unusually cool and wet fall. Wet conditions continued into the winter, and plots faced strong weed pressure, resulting in poor spring biomass because many of the cover crops were outcompeted.

Legume cover crop results.

SPECIES (variety)	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CLOVERS											
<i>CRIMSON</i>											
17MDCC-soft	63	-	-	-	-	0	0	0	-	-	5
Dixie	80	-	-	-	-	0	0	0	-	-	5
Huesers Ostaat	87	-	-	-	-	0	0	0	-	-	5
Kentucky Pride	73	-	-	-	-	0	0	0	-	-	5
19MDCC	77	-	-	-	-	0	0	0	-	-	5
<i>BALANSA</i>											
Fixation	30	-	-	-	-	-	0	-	-	-	5
Viper	17	-	-	-	-	-	0	-	-	-	5
HAIRY VETCH											
Purple Bounty	37	-	-	-	-	1921	892	2950	-	-	4
20MDHV-soft	33	-	-	-	-	-	0	11316	-	-	5
Purple Reign	33	-	-	-	-	-	0	0	-	-	5
AU Merit	50	-	-	-	-	8249	2974	13524	-	-	3
19NCEHV	43	-	-	-	-	4151	714	7588	-	-	4
22NYHV	33	-	-	-	-	-	446	-	-	-	4
23WIHV	20	-	-	-	-	-	0	-	-	-	5
WINTER PEAS											
Frostmaster	80	-	-	-	-	6045	2141	9949	-	-	4
WyoWinter	60	-	-	-	-	-	0	6867	-	-	5
Austrian (VNS)	83	-	-	-	-	-	0	6546	-	-	5
Survivor	77	-	-	-	-	-	0	9697	-	-	5
Keystone	70	-	-	-	-	-	0	11748	-	-	5
Doudlah Diehard	77	-	-	-	-	-	0	-	-	-	5
Canandaigua	70	-	-	-	-	-	0	-	-	-	5

Bold font indicates statistically significant differences. Where multiple varieties are bolded, they are significantly different from non-bolded varieties, but not from each other (i.e., a tie).

Cereal rye and brassica results.

	Fall stand (%)	Spring stand (%)	Fall biomass (lbs/ac)			Spring biomass (lbs/ac)			Stand height (cm)	Flowering at termination (%)	Weed pressure (1-5)
			2-yr	2025	2024	2-yr	2026	2025			
CEREAL RYE											
Hazlet	87	-	-	-	-	-	0	-	-	-	5
Wrens Abruzzi	90	-	-	-	-	14255	9279	19230	-	-	3
NC20-R109	80	-	-	-	-	9496	0	18991	-	-	5
ND Gardner	10	-	-	-	-	5233	0	10466	-	-	5
Elbon	90	-	-	-	-	10771	4580	16961	-	-	3
Wheeler	93	-	-	-	-		0	-	-	-	5
Aroostook	90	-	-	-	-		0	-	-	-	5
WINTER CANOLA											
CP1066WC	57	-	-	-	-	10025	4461	15588	-	-	3
Torrington	70	-	-	-	-	12918	7138	18698	-	-	3
KS 4989	70	-	-	-	-	13247	5591	20902	-	-	3
Trophy	53	-	-	-	-	-	7495	-	-	-	3
RADISH											
Aerifi	87	-	-	-	-	10279	4818	15739	-	-	3
Driller	97	-	-	-	-	11780	3807	19752	-	-	3
FragiBlaster	93	-	-	-	-	-	7435	-	-	-	3

Highlights:

- The brassicas were most effective at competing against weeds. All of the legumes struggled to grow amidst the heavy weed pressure, especially the clovers.
- Strong fall establishment and growth from Frostmaster winter peas helped it suppress weeds better than the other pea varieties and survive into the spring.
- Southern varieties worked well at this site, including AU Merit vetch and Wrens Abruzzi rye.



Questions? Contact etiennesutton@missouri.edu



See page 4 (Testing Procedures) for detailed descriptions of each evaluation metric.