

Cabbage Cultivar Trial
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- Objective:** Evaluate cultivars for potential use under North Dakota Red River Valley conditions.
- Methods:** The trial was conducted at the NDSU agriculture experiment site in Fargo, ND. The soil is a silty clay with 6.8% O.M. and a pH of 7.2. The previous crop was oats. Ground was field cultivated once in the fall following a trifluralin (Treflan) application and twice in the spring, once immediately after 100lb N per acre urea application just prior to transplanting. Seeds were sown in 72-cell trays in the greenhouse March 22 and thinned to one seedling per cell at the first true leaf stage. Seedlings were hardened off before transplanting on May 28. Plots consisted of a single 30-foot row with plants on 18-inch centers and 24-inch row spacing. Plots were arranged as a randomized complete block with four replications. Overhead sprinkler irrigation was provided as needed. Weed escapes were controlled by hand. Fleabeetles, cabbageworm and cabbage loopers were controlled as needed with either esfenvalerate (Asana XL) or permethrin (Pounce). One section of each plot was hand harvested when heads were firm and of marketable size. Analysis of variance was used to analyze data with Fisher's protected LSD test ($p > 0.05$) for treatment means separation.
- Results:** Oklahoma, Vantage Point and Huron were the cultivars that showed the most promise yield-wise, while Charmat, Loughton, and Discovery yielded poorly. Quality characteristics indicated that even though Oklahoma and Vantage Point were the highest yielding cultivars, they also had a large core area, while Prunktor, a high yielding cultivar had the loosest head.

Plant and head characteristics from transplanted cabbage cultivar trial.

Cultivar	Head Wt.	Plant Height	Plant Width	Head Length	Head Width	Core Length	Core Width	Head Density	Inside Color	Outside Color	Overall	Yield	
	(lbs.)	-----inches-----											(ton/A)
Ancoma	4.4	11.2	26.1	6.2	6.2	3.2	1.5	2.7	1.3	1.1	6.8	47.4	
Augusta	4.5	9.6	27.1	6.7	6.6	3.0	1.5	2.3	1.7	2.0	7.0	49.2	
Bayou	4.8	9.8	26.8	6.4	7.1	3.4	1.4	1.9	1.7	1.9	5.9	52.3	
Charmat	3.6	9.4	22.4	6.1	6.0	2.9	1.3	2.3	1.4	1.6	6.7	39.1	
Discovery	3.8	8.9	26.1	6.3	6.0	3.4	1.4	2.6	1.6	2.2	7.4	41.3	
Huran	5.0	10.9	27.4	6.6	6.7	3.4	1.7	2.6	1.5	1.1	7.3	55.0	
Loughton	3.6	10.3	26.1	6.4	5.9	2.6	1.6	2.6	1.9	1.4	7.0	39.3	
Oklahoma	5.4	9.5	25.0	7.4	6.7	3.5	1.7	2.4	1.8	1.2	6.8	58.5	
Prunktor	4.6	9.3	25.9	6.8	6.4	2.5	1.5	1.5	1.5	1.8	5.8	50.6	
Quisto	4.6	9.4	26.0	6.5	6.7	3.3	1.4	2.5	1.4	1.3	7.1	49.6	
Vantage Point	5.2	9.2	24.8	6.9	6.8	4.1	1.4	2.0	1.3	1.2	6.3	56.3	
LSD 0.05	1.3	1.5	2.4	0.8	0.7	0.5	0.2	0.3	0.4	0.5	0.9		

Head density: scale 1 – 3 (1=loose, 3=dense).

Head color: scale 1 – 8 (Inside 1=white, 8=red; Outside 1=light green, 8=red).

Overall rating: scale 1 – 10 (1=worst, 10=best).