Winter wheat variety trials: 2024 and 2025

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Objective

Evaluate the yield potential of winter wheat varieties in northern Iowa.

Key Takeaways

- In 2024, winter wheat yields had excellent yield in northern Iowa, ranging from 80.9 to 121.9 bushels/acre. However, in 2025, winter wheat yields were much lower at Nashua (31.4 to 55.3 bushels/acre) due to dry fall conditions limiting emergence and fall growth and wet June/July weather.
- In 2025, winter was not harvested at Kanawha due to extremely wet conditions around maturity and lodging.

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Table 1. Management information for winter wheat variety trials in Kanawha and Nashua in 2024.

	Kanawha 2024	Nashua 2024	Nashua 2025
Previous crop	soybean	soybean	soybean
Replications	3	3	3
Harvested plot size	5 ft by 57 ft	8.125 ft by 50 ft	8.125 ft by 50 ft
Fertilizer applied	52 lb P2O5 on 20 Oct 2023; 240 lb K2O on 20 Oct 2023; 17 lb S/acre on 11 Oct 2023; 35 lb N/acre on 13 March 2024	31 lb P2O5 on 7 Nov 2023; 200 lb K2O on 7 Nov 2023; 25.5 lb S/acre on 19 Nov 2023; 35 lb N/acre on 7 March 2024	31 lb P2O5 on 25 Oct 2024; 200 lb K2O on 25 Oct 2024; 31.8 lb S/acre on 17 Jan 2025; 35 lb N/acre on 27 March 2025
Tillage	no-tillage	no-tillage	no-tillage
Planting date	5 October 2023	6 October 2023	11 October 2024
Row spacing	7.5 inches	7.5 inches	7.5 inches
Seeding rate	53.5-97.6 lb/ac depending on seed size	66-91 lb/ac depending on seed size	77-99.8 lb/ac depending on seed size
Seeding depth	1.25 inches	1.25 inches	1.25 inches
Harvest date	16 July 2024	18 July 2024	21 July 2025

Table 2. Entrant, brand/variety, and type of winter wheat.

Entrant	Brand/Variety	
Merschman Seeds	Bintee 12	Soft red winter wheat
Merschman Seeds	Katie 15 & 16	Soft red winter wheat
Merschman Seeds	Millie 8	Soft red winter wheat
Albert Lea Seed	Pheasant	Hard red winter wheat
Albert Lea Seed	Viking 211	Hard red winter wheat
Albert Lea Seed	Viking 801	Soft red winter wheat
Albert Lea Seed	Winner	Hard red winter wheat

Table 3. Yield, test weight, and plant height of winter wheat varieties in 2024.

Location	Variety	Grain Yield	Test Weight	Plant Height
		bu/ac	lb/bu	In
Kanawha 2024	Bintee 12	99.4	58.0	28.3
	Katie 15	113.8	59.1	31.8
	Millie 8	95.7	55.2	32.5
	Viking 211	94.8	55.6	32.5
	Viking 801	121.9	55.5	34.3
	Winner	107.9	59.8	34.5
	p-value	0.0717	0.0860	0.0001
	LSD (0.10)	16.1	3.6	1.4
Nashua 2024	Bintee 12	84.3	56.5	28.8
	Katie 15	83.7	57.0	30.5
	Millie 8	74.5	56.6	29.7
	Viking 211	67.0	53.2	32.5
	Viking 801	93.4	55.4	32.8
	Winner	80.1	56.3	32.0
	p-value	0.0012	0.0001	0.0008
	LSD (0.10)	7.2	0.6	1.5
Nashua 2025	Bintee 12	31.4	48.2	23.8
	Katie 16	37.8	50.6	24.7
	Millie 8	37.9	51.9	26.2
	Pheasant	55.3	53.5	30.8
	Viking 211	49.9	53.2	28.0
	Viking 801	35.5	49.0	28.0
	p-value	0.0009	0.0005	0.0002
	LSD (0.10)	9.9	1.7	1.8