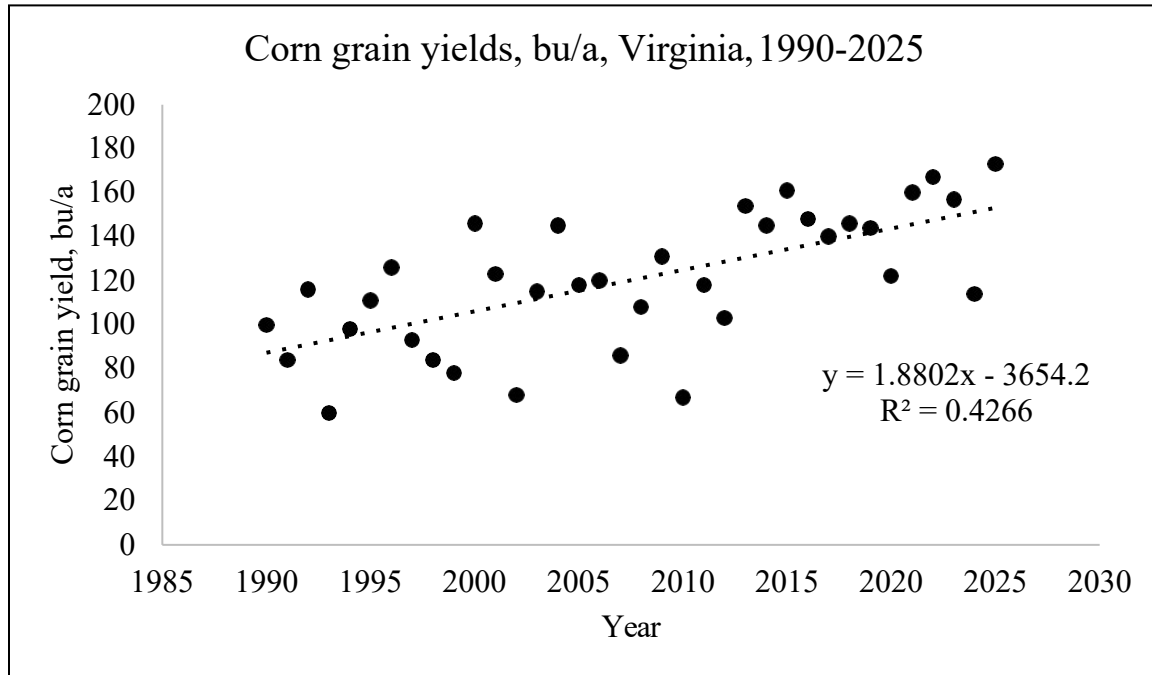


Virginia Corn Yields – 2025 Update

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Soil Management Groups	Soil Productivity Groups	1993 Realistic Yield, bu/a	2005 Realistic Yield, bu/a	2014 Realistic Yield, bu/a	2025 Realistic Yield, bu/a
A,B	Ia	160	180	180	220
C,D	Ib	150	170	170	210
E, F, G, H, I	IIa	140	160	160	200
J, K, L, M, N, O, P	IIb	130	150	150	190
Q, R, S	IIIa	120	140	140	180
T, U	IIIb	110	130	130	170
V, W, X, Y, Z, AA	IVa	100	120	120	160
BB, CC, DD, EE, FF, GG, HH	IVb	85	100	100	140
II, JJ, KK, MM, NN, OO, PP, QQ	V	65	80	80	120

The original “The Development and Implementation of The Virginia Agronomic Land Use Evaluation System (VALUES)” document was published in 1993 by Thomas W. Simpson, Stephen J. Donohue, George W. Hawkins, Margaret M. Monnett, and James C. Baker, Department of Crop and Soil Environmental Sciences, Virginia Tech. The document listed corn yields ranging from 65 to 160 bu/a for various Soil Productivity Groups (Table A3. Soil Productivity Groups vs. Soil Management Groups for Corn Grain, page 38).

The VALUES document was revised in 2005. “The VALUES Guidebook” document was published by Thomas W. Simpson, James C. Baker, and Margaret Matt Monnett, Department of Crop and Soil Environmental Sciences, Virginia Tech. The corn yields were not revised in 2005, ranging from 65 to 160 bu/a for various Soil Productivity Groups (Table 3. Soil Productivity Groups vs. Soil Management Groups for Corn Grain, page 10).

The latest revision of the Virginia Nutrient Management Standards and Criteria document released in 2014 listed revised corn yields, ranging from 80 to 180 bu/a for various Soil Productivity Groups (Table 1-2. Estimated Yields in Bushels (Bu) or Tons (T) per Acre (Ac) of Various Non-Irrigated Crops for Identified Soil Productivity Groups, page 25).

Corn hybrids differ in their performance in different environments. Some hybrids are adapted to a wider range of environments. Hybrid performance may vary with year and location, variations in temperature, precipitation, pests, diseases, and other environmental factors. Multi-year average yield values provide an estimate of potential yield with greater confidence.

In 2025, the realistic yields for corn in Virginia for Soil Productivity Groups Ia through V were estimated based on the analysis of the long-term data obtained from the USDA's National Agricultural Statistics Service (NASS) and the results of the official Virginia performance trials of commercial corn hybrids. Specifically, the NASS-reported corn grain yields (bu/a) for the period from 1990 to 2025 was assessed. The increase of approximately 1.8 bu/a/year was observed for corn grain yields in Virginia over the past 35 years.

Additionally, the results of the official Virginia performance trials of commercial corn hybrids conducted annually at six locations: Blacksburg (Montgomery Co.), Blackstone (Nottoway Co.), Holland (Nansemond Co.), Mt. Holly (Westmoreland Co.), Orange (Orange Co.), and Shenandoah Valley (Page Co.) were analyzed. Specifically, corn grain yield (bu/a) trends for the periods from 2022 to 2024 were assessed. Multi-year average corn yield values ranged from 165 to 230 bu/a under non-irrigated conditions, in tests where no significant disease or pest damage was observed.

Conclusion: the proposed realistic corn yields for Virginia are set to range from 120 to 220 bu/a for Soil Productivity Groups Ia through V.