



# POTATOES & PESTS PAPPAS

USDA NIFA 2022-51181-38450

Actionable Science Against Nematodes

## Potato Economics

Potatoes are the most economically important vegetable in the world. According to the FAO, global potato production was 375 million metric tons, or about 827 billion pounds in 2022 with a value of almost \$120 billion U.S. dollars. The United States was responsible for just under 5% of the total global production.

Total acres harvested in the United States has declined from its highs of 1.14 million acres in 2012 and was reported at 960 thousand acres in 2023 (figure 1). However, potato yields have increased significantly over that same period of time (figure 2).

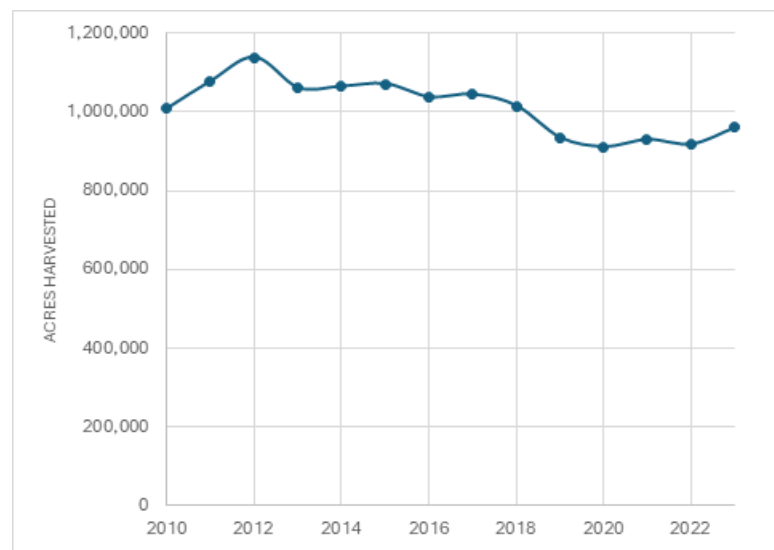


Figure 1 - Potato Acres Harvested in the U.S. from 2010 – 2023. Source: USDA NASS

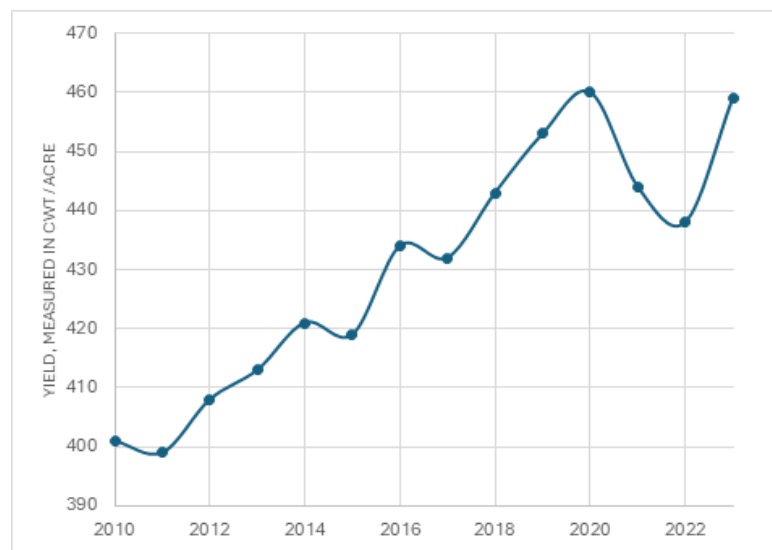


Figure 2 - U.S. Potato Yields from 2010 - 2023. Source: USDA NASS

Potato prices have been relatively stable from 2010 through 2021 (figure 3), oscillating from about \$9.20 per CWT to \$10.20 per CWT. However, potato prices saw a large jump in 2022 and 2023 to \$12.80 and \$12.90 per CWT respectively. This high price did not last and current potato prices in 2024 have fallen again to closer to the \$10 per CWT range.

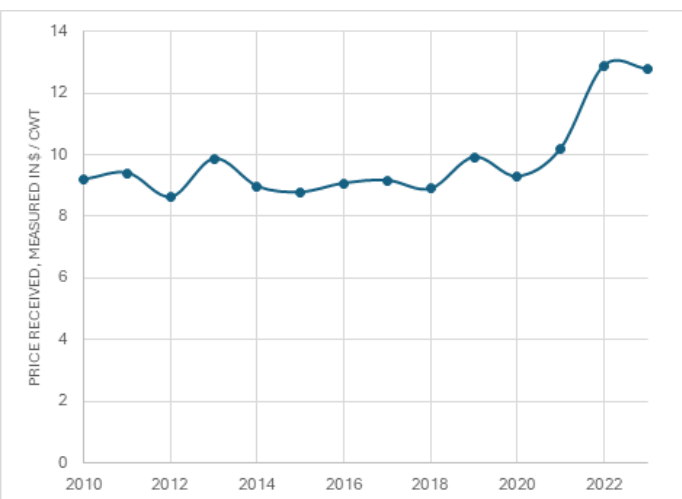


Figure 3 – Average Potato Price Received in the U.S. from 2010 - 2023 (nominal dollars). Source: USDA NASS

Given the volatility in prices and yields, we are developing standardized enterprise budgets for the states of Idaho, Washington, North Dakota, New York, Colorado, and Wisconsin which track the expected costs and earnings associated with potato production. We are also addressing the sensitivity of farm level profitability to price and yield changes. Finally, we are addressing the potential impact on expected costs and earnings of using existing or newly developed nematode resistant varieties of russet potatoes. This research will address the potential profitability of nematode resistant potato varieties and how improved varieties can both reduce pesticide use and help farmers with their bottom lines.