

# ERS Resources & Statistics: Exploration of U.S. Dry Bean Statistics

#### 2024 U.S. Dry Bean Convention Savannah, Georgia August 2024

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<sup>1</sup> United States Department of Agriculture (USDA), Economic Research Service (ERS).

Note: Names listed with presenter first and all other members of the Specialty Crop Team listed in alphabetical order by last name.

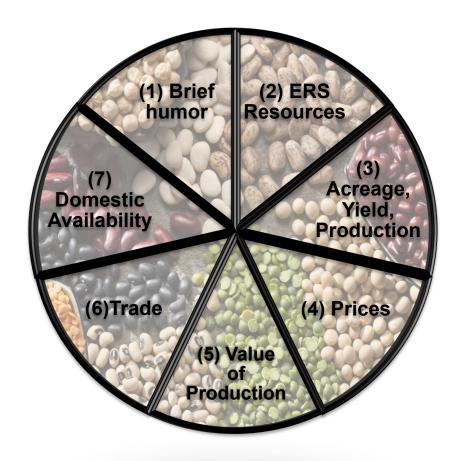
<u>Disclaimer</u>: This research was supported by the U.S. Department of Agriculture, Economic Research Service. The findings and conclusions in this publication are those of the authors and should not be construed to represent any official USDA or U.S. Government determination or policy.







## **Key Slices** — **Presentation Outline**











# Why were the dry beans eager for their interviews?

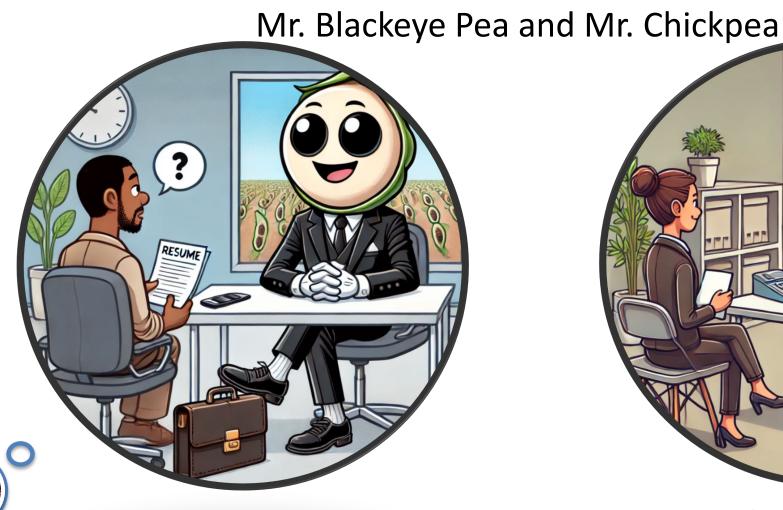








## They couldn't wait to spill the beans about their talents...





# **Brief Dry Humor**













Recent ERS publications related to vegetables and pulses

The U.S. vegetables and pulses sector comprises hundreds of independent markets within the food marketing system. From 2017 to 2022, U.S. farm cash receipts from the sale of vegetables and pulses (including potatoes and mushrooms) averaged \$19.9 billion approximately 10 percent of average U.S. crop cash receipts over the same time period. This amount was generated on approximately 2 percent of all U.S. harvested acreage. Annual per capita availability (a proxy for consumption) of vegetables and pulses over the same period averaged 414 pounds - down approximately 4 percent from a decade earlier when average per capita availability was 431 pounds.

USDA, ERS provides a range of data products and reports on vegetable and pulse markets including domestic supply, demand, trade, and prices.

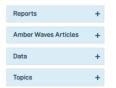
#### Periodic, Scheduled Outputs

- . Outlook reports are published three times a year and provide current intelligence and forecasts on changing conditions in the U.S. vegetable and pulses sector. Interactive charts and highlights of the most recent Outlook report are available on the Market Outlook page.
- · Vegetables and Pulses Data are updated monthly and provide prices, price indexes, and trade for the sector and for individual
- · Vegetables and Pulses Yearbook Tables are updated annually and contain Excel spreadsheets detailing a 40 year time series of supply, availability (including per capita use), and price for a range of U.S. fresh and processing vegetables.

#### Recent USDA, ERS Reports Relating to Vegetables and

In addition to the periodic Outlook reports and data products, USDA, ERS disseminates reports covering issues important to vegetable and pulse crop markets in the United States and around the world. Recent USDA, ERS reports relating to vegetable and pulse crops include:

· Trends, Insights, and Future Prospects for Production in Controlled Environment Agriculture and Agrivoltaics Systems Public and private investments in alternative food production systems have increased in recent years. Two systems, controlled environment agriculture (CEA) and agrivoltaics (AV), have been highlighted for their potential to provide socioeconomic benefits





## **ERS Resources**





Commodity Highlights

Data

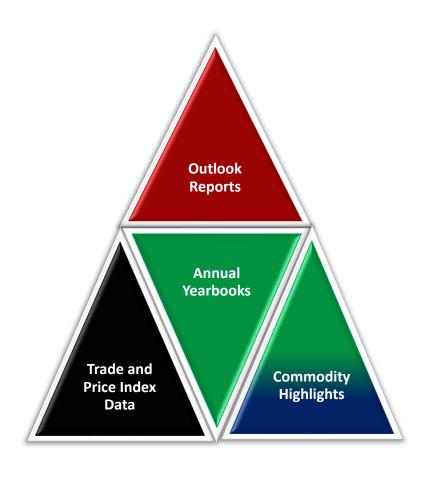






## **ERS Specialty Crop Resources for Pulse Crops**





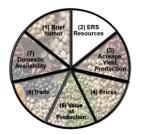












#### **Pulse Yearbook Tables**

Supply and availability (13)

Import and export value (2)

Per capita availability (2)

Harvest, production, and crop value (1)

		Supply Supply								Season average price Pounds U.S. dollars/cwt	
Year	Production/2	Imports/3	Beginning stocks/4	Total supply	Exports/3	Seed use/5	Ending stocks/4	Domestic availability	Per capita availability	Current dollars/2,6	Constant 2012 dollars/7
1984	2,107.0	58.3	3 921.3	3,086.6	593.8	84.0	1,130.8	1,278.0	5.41	18.70	35.35
1985	2,217.5	58.		3,406.4	638.4	84.9	1,034.8	1,648.2		17.60	32.25
1986	2,288.6	47.		3,370.9	846.0	93.4	901.2			19.10	34.31
1987	2,603.1	53.3		3,557.6	758.6	78.6	1,413.3	1,307.2		16.50	28.92
1988	1,925.3	64.5		3,403.1	838.7	92.2	794.6			29.90	50.63
1989	2,372.9	97.1	2 794.6	3,264.7	832.1	110.6	981.6	1,340.5	5.42	28.50	46.44
1990	3,237.9	90.3		4,309.7	1,107.3	97.1	1,422.2	1,683.2	6.73	18.50	29.06
1991	3,376.5	75.8		4,874.5	1,011.3	81.3	1,919.4	1,862.5	7.35	15.60	23.70
1992	2,261.5	67.3	7 1,919.4	4,248.7	620.3	92.2	1,527.7	2,008.5	7.82	19.90	29.56
1993	2,186.2	67.4	4 1,527.7	3,781.3	683.2	99.4	1,118.0	1,880.8		24.60	35.69
1994	2,896.7	75.9	1,118.0	4,090.5	797.0	104.5	1,158.5	2,030.5	7.71	22.50	31.96
1995	3,069.0	84.6		4,312.3	831.7	93.6	1,386.2	2,000.8		20.80	28.94
1996	2,791.2	88.0		4,265.4	754.3	96.7	1,409.6		7.43	23.50	32.11
1997	2,937.0	100.0		4,447.4	803.2	105.2	1,520.3	2,018.7	7.40	19.30	25.93
1998	3,041.8	92.4		4,654.5	1,106.3	105.7	1,438.0			19.00	25.24
1999	3,314.6	125.0	1,438.0	4,877.6	843.9	91.9	1,762.7	2,179.1	7.80	16.40	21.47
2000	2,654.3	128.9		4,545.9	788.4	75.7	1,512.2			15.50	19.85
2001	1,961.0	192.		3,665.7	755.5	100.4	8.008	2,009.0		22.10	27.70
2002	3,031.2	245.8		4,077.8	673.2	73.8	1,368.0	1,962.8		17.10	21.10
2003	2,249.2	190.6		3,807.7	648.4	70.3	1,119.8			18.40	22.29
2004	1,774.3	207.		3,101.2	561.4	84.6	697.9			25.70	30.31
2005	2,657.6	224.9		3,580.4	564.1	84.6	1,118.3	1,813.4		18.50	21.16
2006	2,415.5	237.1		3,771.1	791.8	79.8	971.9	1,927.5		22.10	24.54
2007	2,558.6	283.6		3,814.3	668.3	78.1	1,145.4	1,922.6		28.80	31.14
2008	2,556.8	327.		4,029.3	916.0	81.0	1,066.5			34.60	36.70
2009	2,542.7	296.9		3,906.1	1,035.1	99.9	1,002.4	1,768.7	5.75	30.00	31.58
2010	3,180.1	288.		4,471.3	1,000.6	65.3	1,184.7	2,220.8		28.00	27.66
2011	1,989.0	320.		3,493.9	983.3	91.3	772.9			42.10	40.79
2012	3,192.5	310.2		4,275.6	1,237.5	72.2	1,257.7	1,708.2		38.00	36.13
2013	2,458.7	265.		3,982.1	1,086.6	90.1	1,172.5			39.10	36.57
2014	2,891.0	335.0		4,398.5	1,179.3	94.2	1,211.8	1,913.2		32.30	29.72
2015	3,005.7	349.5		4,567.0	946.6	88.3	1,248.8	2,283.2		27.30	26.05
2016	2,872.4	339.		4,460.5	1,023.3	114.2	1,160.4	2,162.5		29.20	27.56
2017	3,596.1	350.		5,115.4	1,181.1	116.0	1,346.0	2,472.3		26.70	24.78
2018	3,774.5	392.9		5,521.3	913.9	95.9	1,770.2			25.40	23.02
2019	2,701.2	314.2		4,794.2	1,127.7	107.8	1,586.6	1,972.2		31.80	28.32
2020	3,675.2	439.		5,706.6	1,144.1	96.4	1,802.7	2,663.4		30.89	27.16
2021	2,558.2	420.9	1,807.7	4,786.7	1,031.3	91.5	1,266.6	2,397.4	7.23	38.98	32.89
= Not available. Cwt = hundredweight. Most recent year is preliminary.											

Source: USDA, Economic Research Service.











<sup>1/</sup> Includes garbanzo beans (chickpeas

<sup>2/</sup> Source: USDA, National Agricultural Statistics Service.

<sup>5/</sup> Estimated by USDA, Economic Research Service.

<sup>6/</sup> Season-average grower price across all classes. Estimated by USDA, ERS after 2019.

<sup>7/</sup> Deflated by the Gross Domestic Product implicit price deflator, 2012=100.

#### **Commodity Highlights – High Level Inventory**



#### **Pulse Visualizations**

Production and Prices (13)

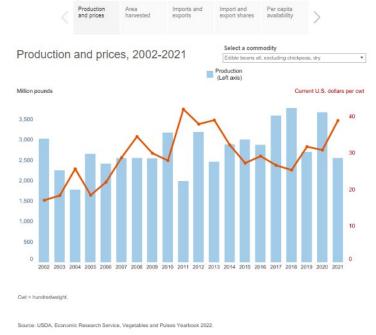
Area Harvested (2)

Imports and Exports (13)

Import and Export shares (13)

Per Capita Availability (13)













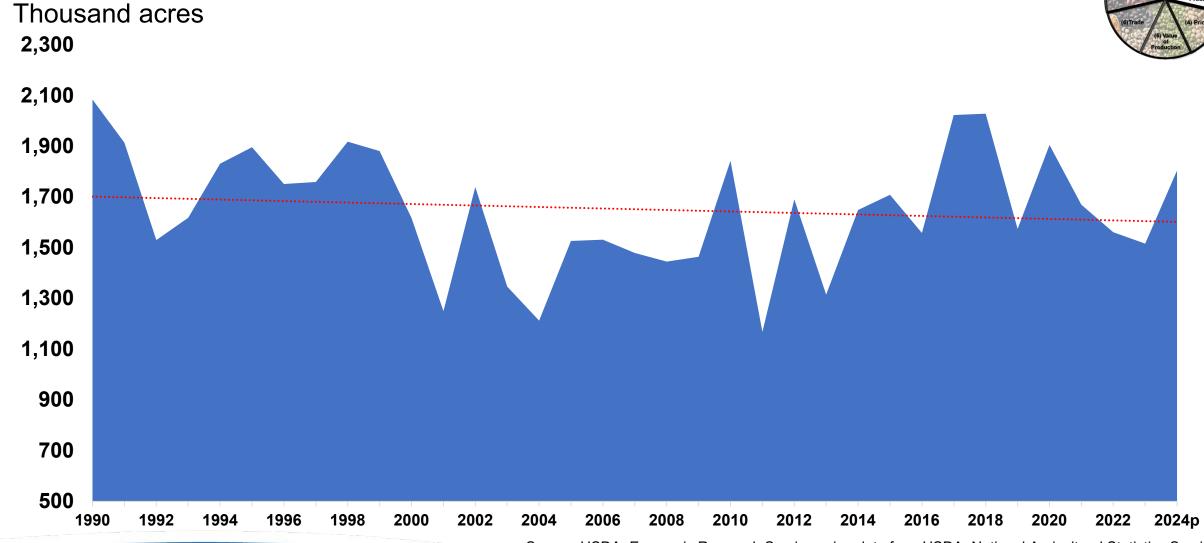
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#### U.S. dry beans<sup>1</sup>: Acres harvested trending lower, 1990–2024



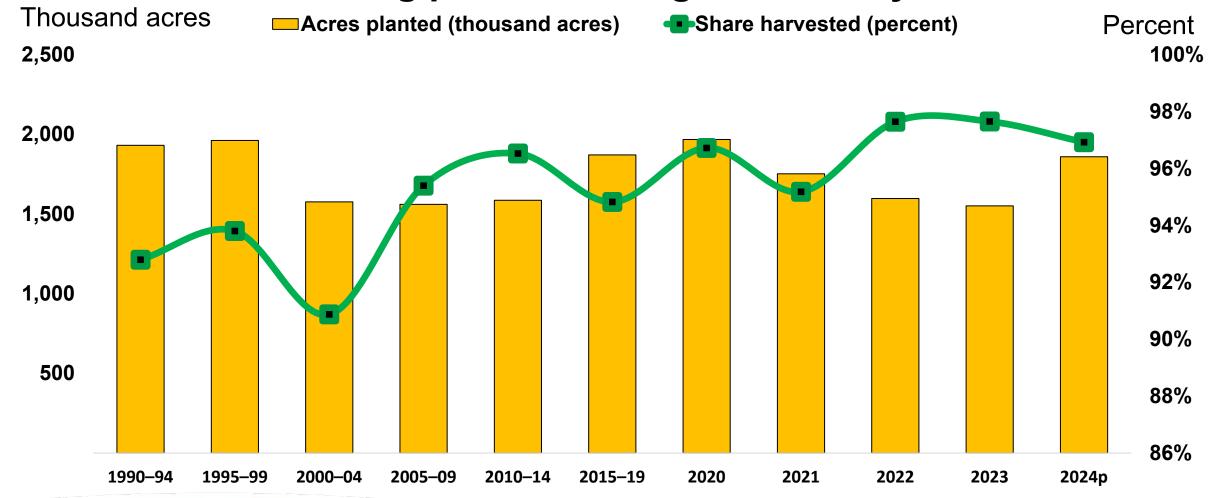


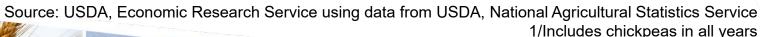
Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service

1/Includes chickpeas in all years



U.S. dry beans<sup>1</sup>: Area planted and share harvested with declining planted acreage in recent years

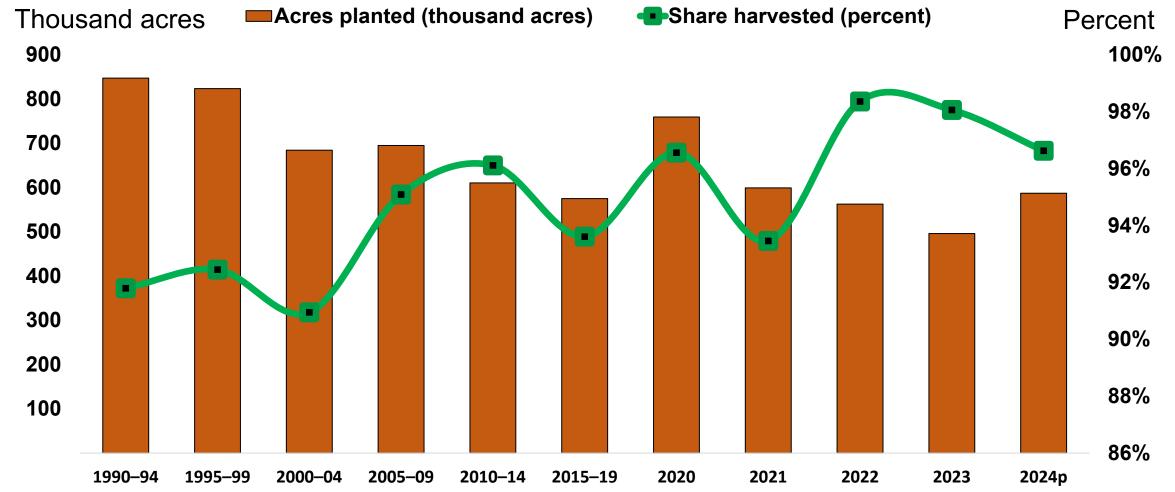






#### U.S. pinto beans: Area planted and share harvested

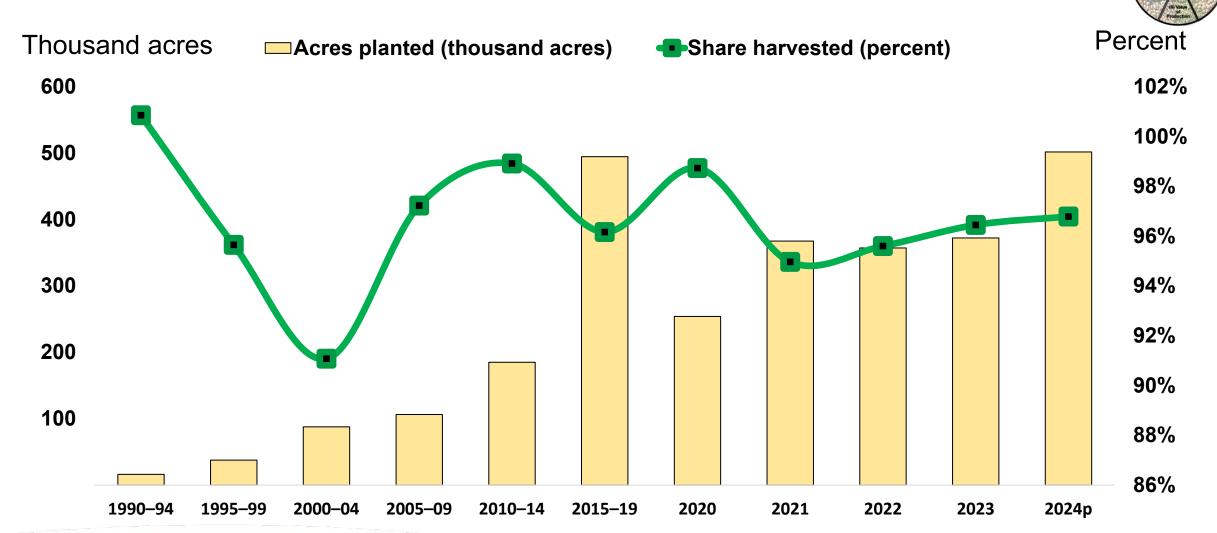




Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service



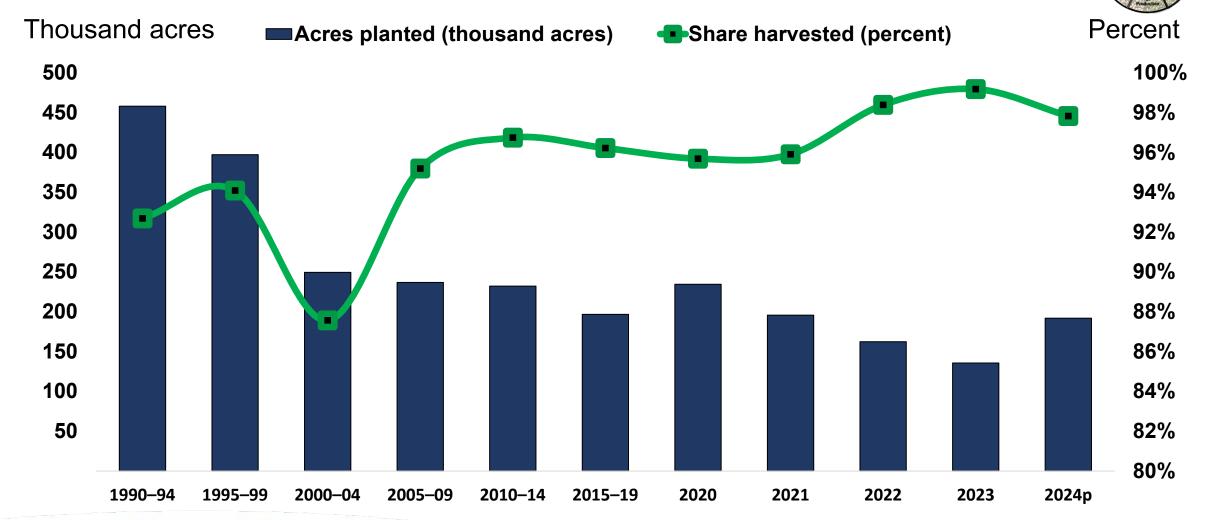
#### U.S. chickpeas: Area planted and share harvested

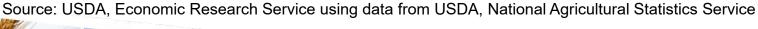






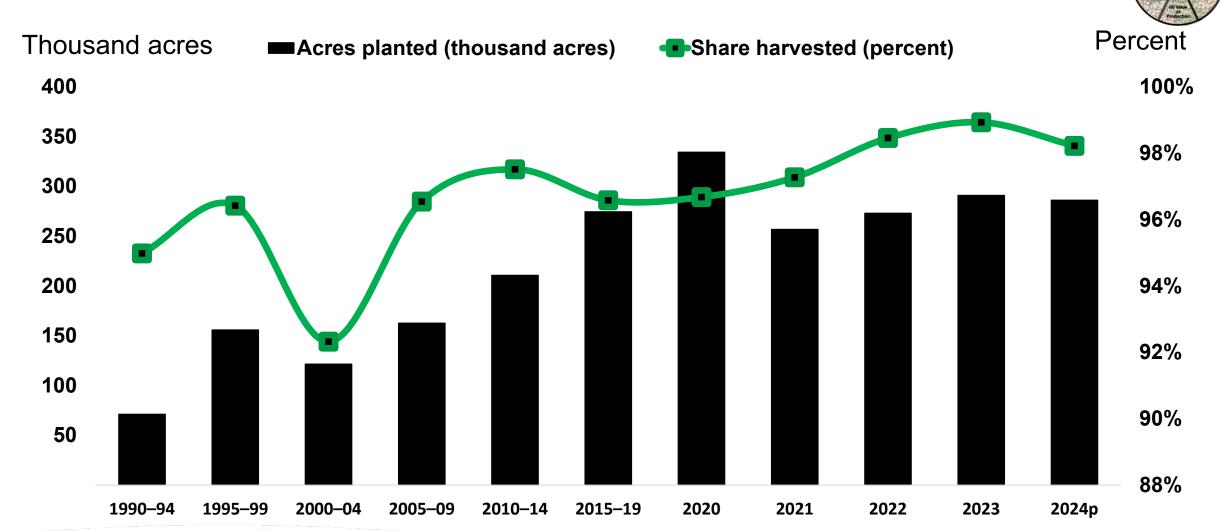
#### U.S. navy beans: Area planted and share harvested







#### U.S. black beans: Area planted and share harvested



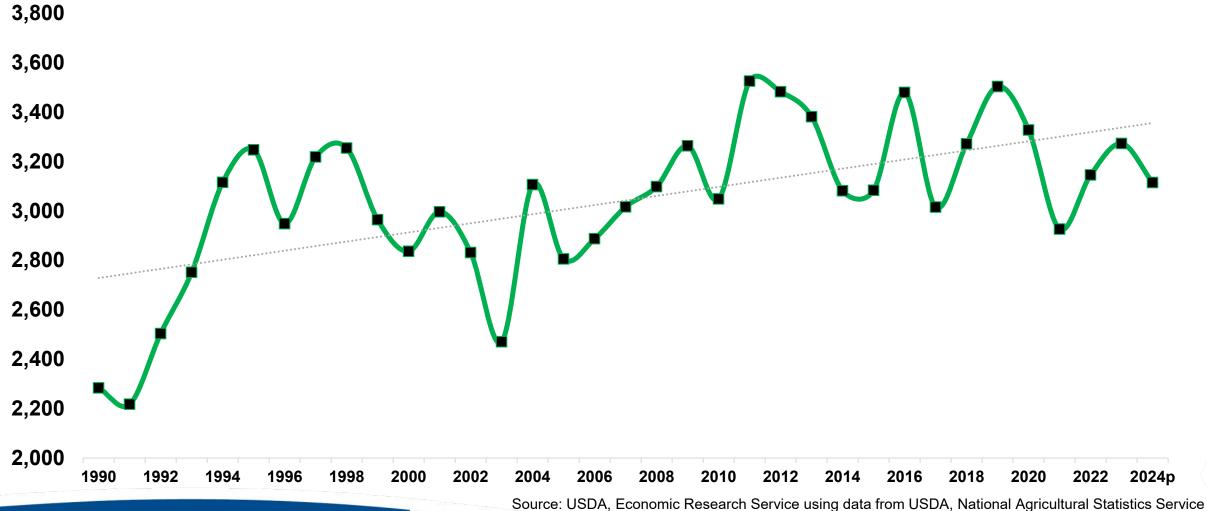
Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service



#### U.S. dry beans<sup>1</sup>: Yield trending higher, 1990-2024p





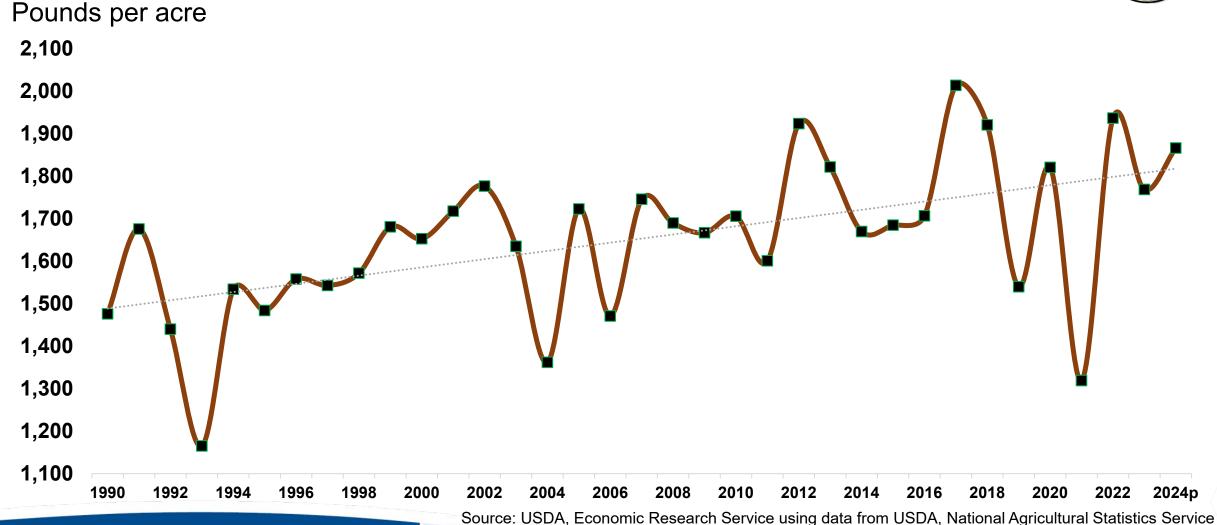




1/Includes chickpeas in all years

#### U.S. pinto beans: Yield trending higher, 1990-2024p

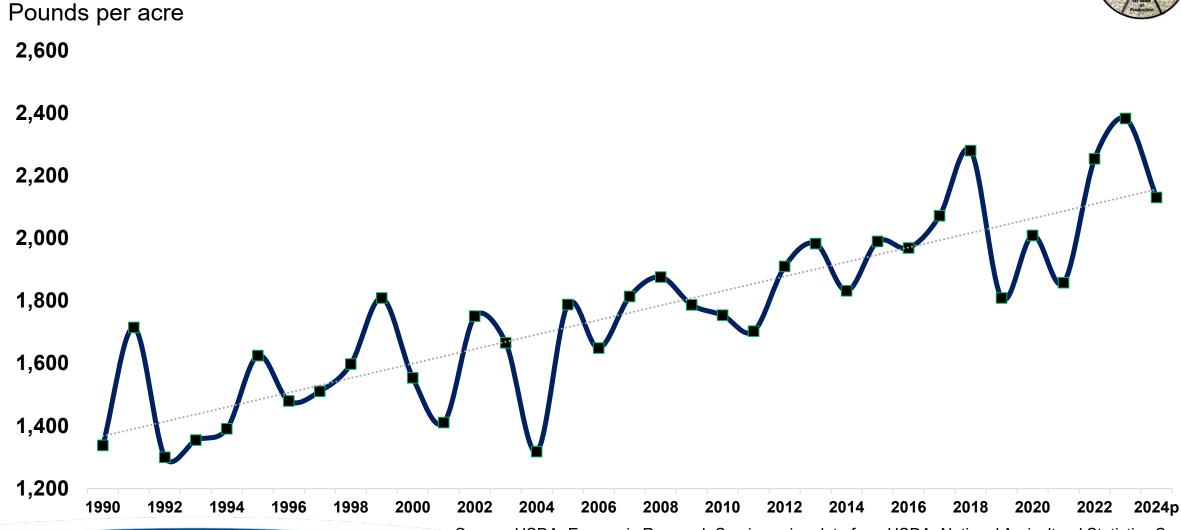






#### U.S. navy beans: Yield trending higher, 1990-2024p





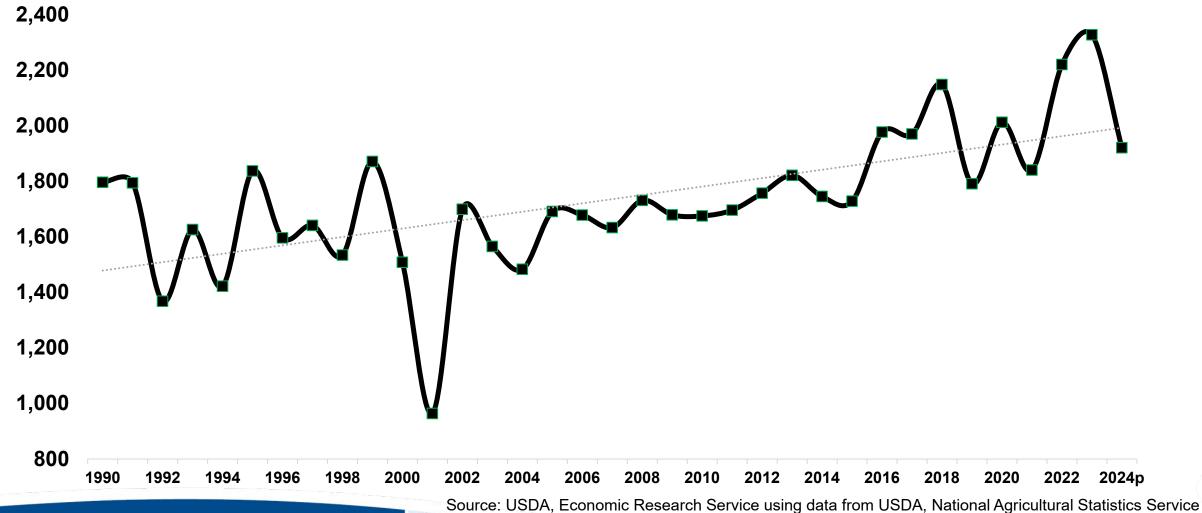




#### U.S. black beans: Yield trending higher, 1990-2024p



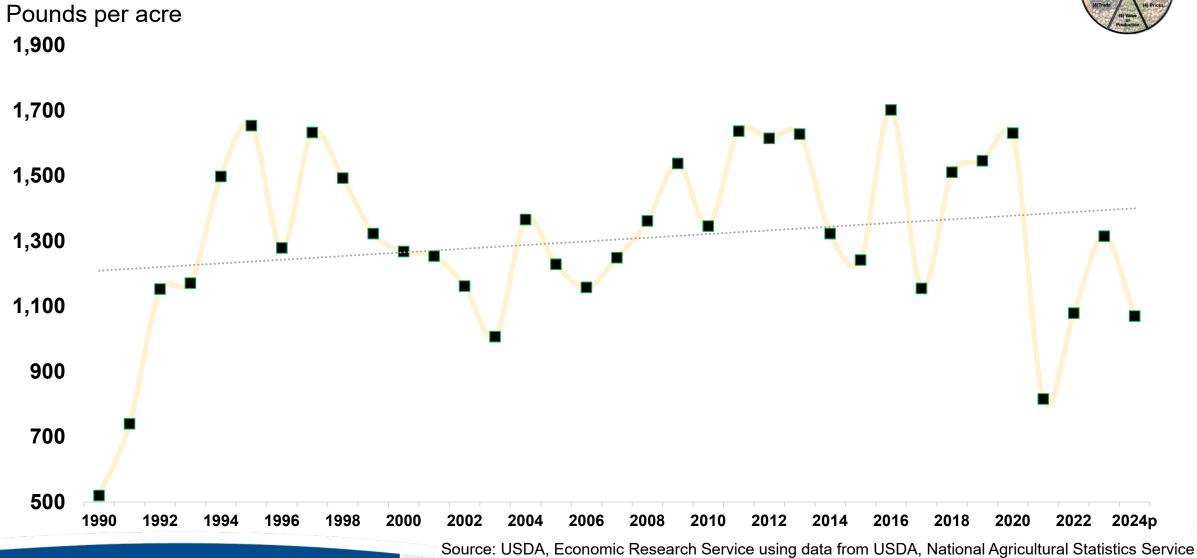






#### U.S. chickpeas: Yield trending higher, 1990-2024p

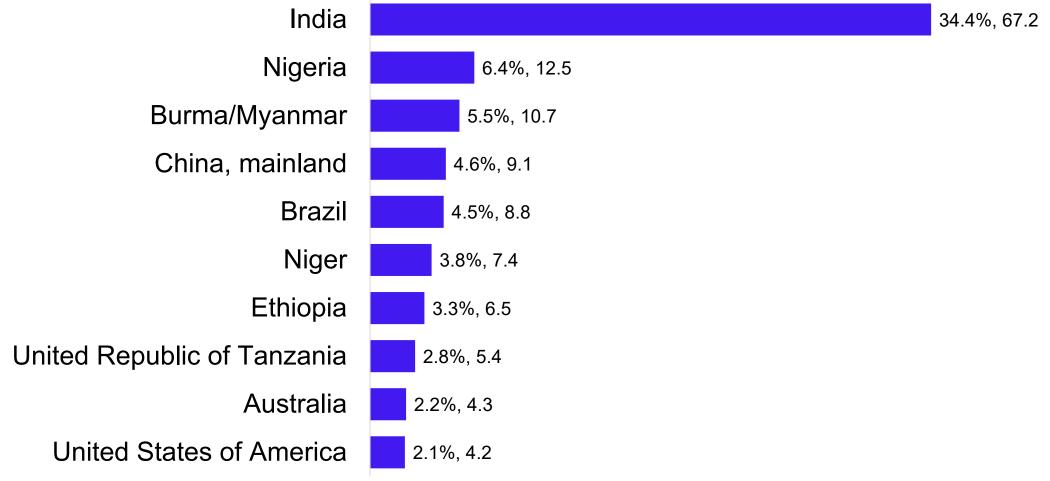








#### World dry beans<sup>1</sup>: Top 10 producers by country, 2020–22



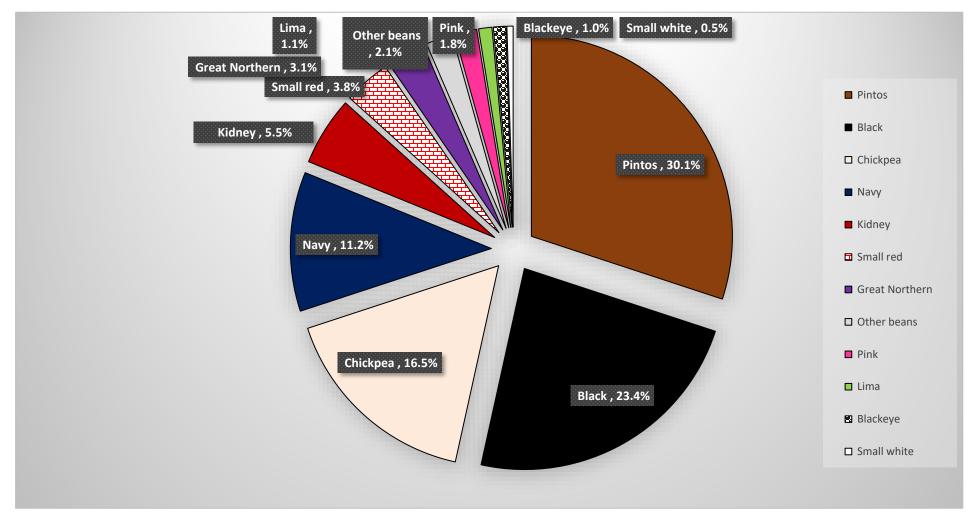
Source: USDA, Economic Research Service using data from FAOStat, Food and Agriculture Organization of the United Nations.

1/Includes dry beans, Bambara beans, broad beans and horse beans, chickpeas, cowpeas/blackeye peas, and pigeon peas.

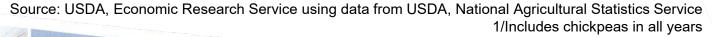


#### U.S. dry beans<sup>1</sup>: Production by class, 2023







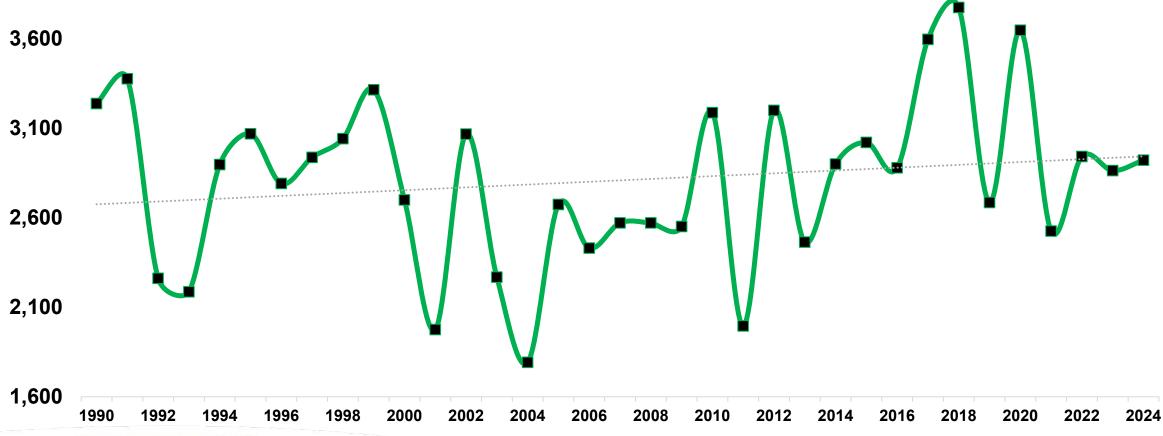


#### U.S. dry beans<sup>1</sup>: Production trends higher in the long-term



Million pounds



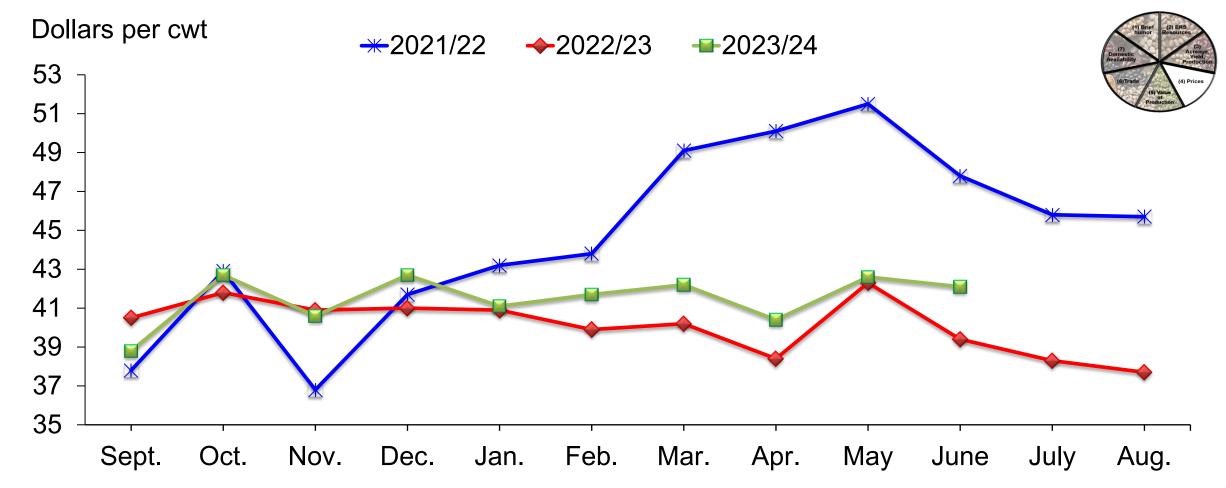


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service

1/Includes chickpeas in all years



# U.S. dry beans, excluding chickpeas: Monthly grower prices in 2023/24 above previous year but below the high levels experienced in 2021/22



Source: USDA, Economic Research Service calculations using National Agricultural Statistics Service, *Agricultural Prices*.

Note: cwt = hundredweight, a unit of measure equal to 100 pounds.

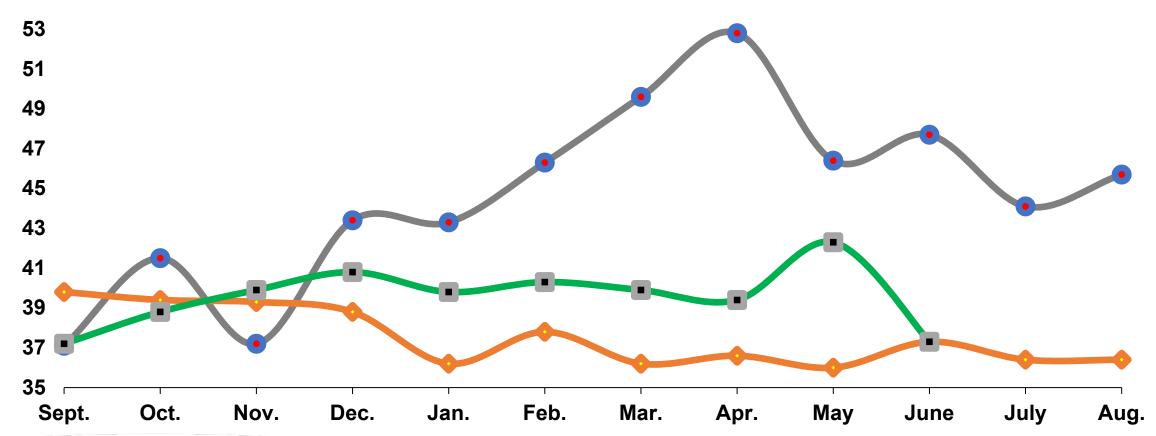


#### North Dakota dry beans: Monthly grower prices received



**◆**2021/22 **◆**2022/23 **◆**2023/24

Dollars per cwt



Source: USDA, Economic Research Service calculations using National Agricultural Statistics Service, *Agricultural Prices*.

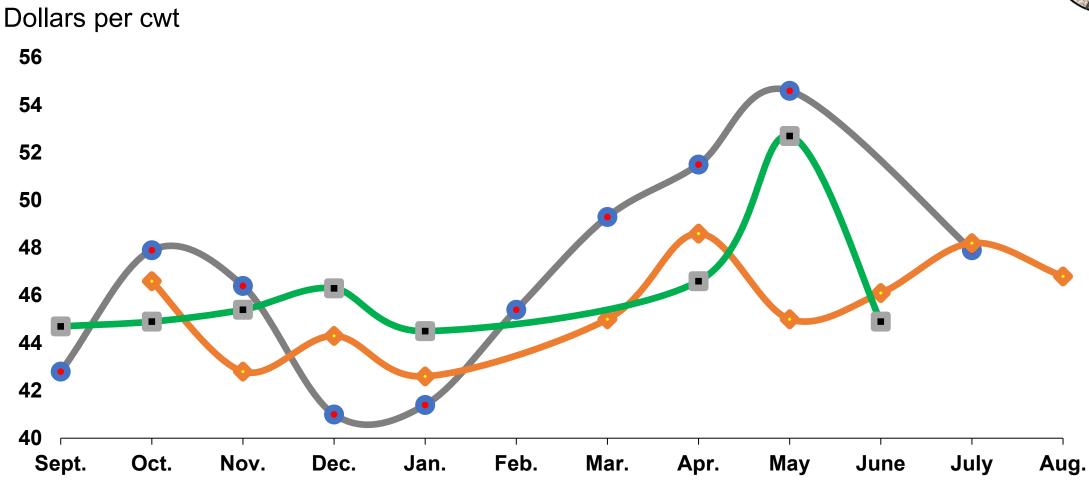
Note: cwt = hundredweight, a unit of measure equal to 100 pounds.



#### Michigan dry beans: Monthly grower prices received



**◆**2021/22 **◆**2022/23 **◆**2023/24



Source: USDA, Economic Research Service calculations using National Agricultural Statistics Service, *Agricultural Prices*.

Note: cwt = hundredweight, a unit of measure equal to 100 pounds.

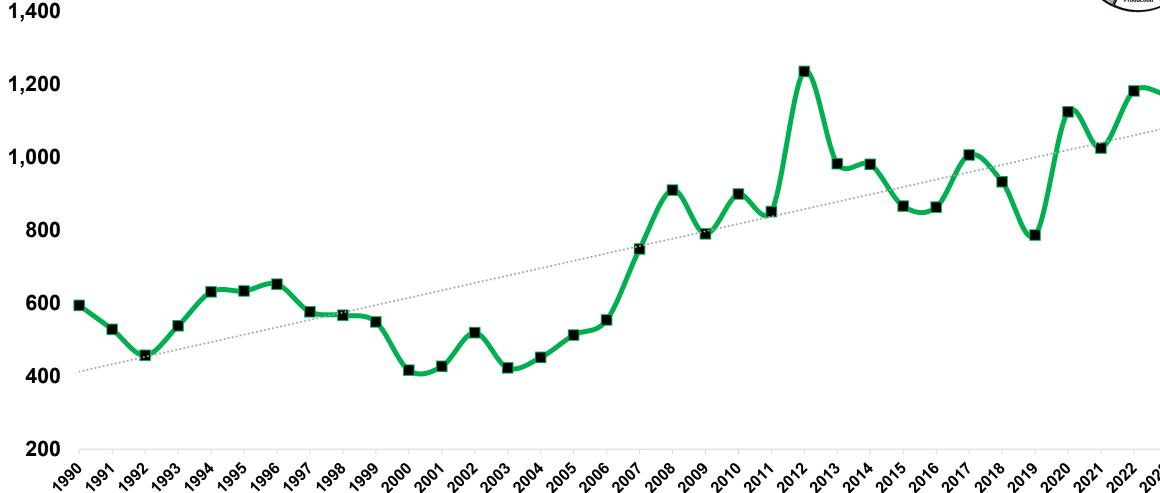


#### U.S. dry beans<sup>1</sup>: Value of production





Million dollars

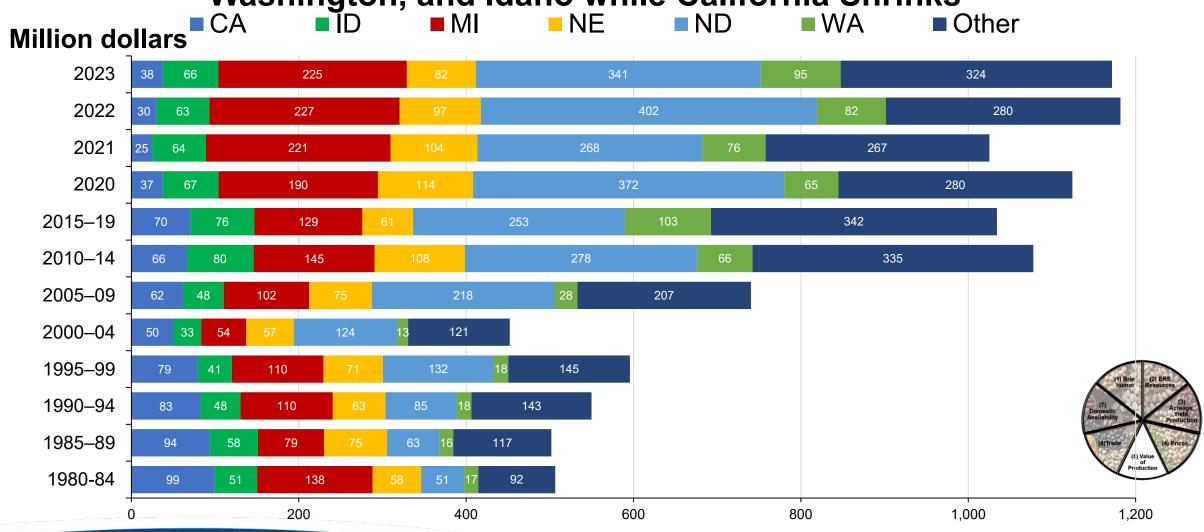


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service

1/Includes chickpeas in all years



# U.S. dry beans<sup>1</sup>: State value of production rises in North Dakota, Michigan, Washington, and Idaho while California Shrinks

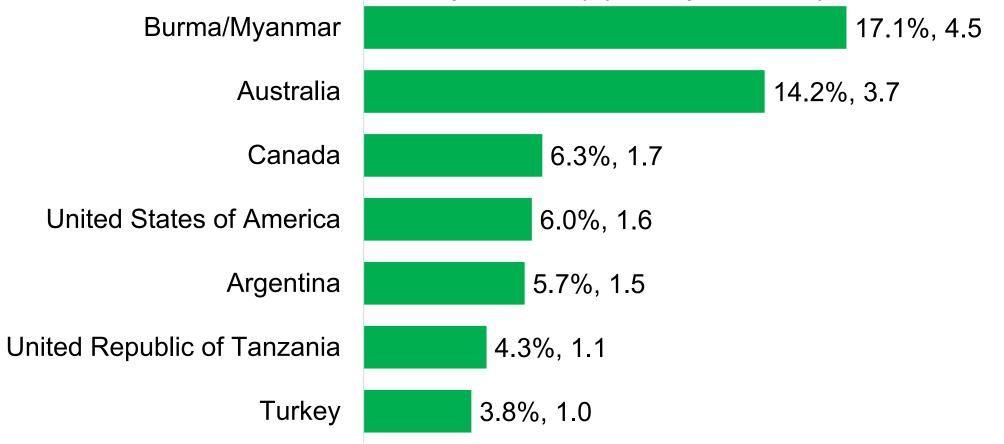






## Top world dry bean<sup>1</sup> exporters, 2020–2022

Percent share of world export volume (%) and export volume (million metric tons)



Source: USDA, Economic Research Service using data from FAOStat, Food and Agriculture Organization of the United Nations.

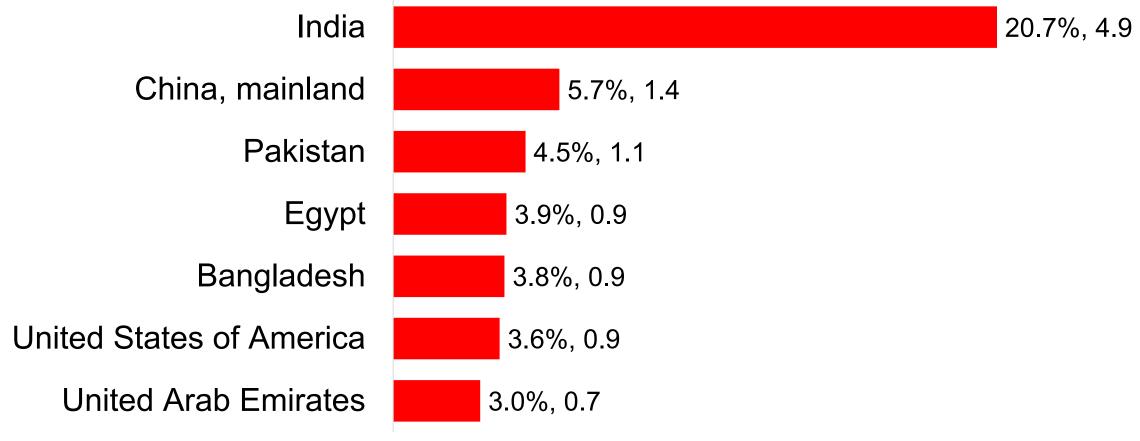
1/Includes dry beans, Bambara beans, broad beans and horse beans, chickpeas, cowpeas/blackeye peas, and pigeon peas.





## Top world dry bean<sup>1</sup> importers, 2020–2022

Percent share of world import volume (%) and import volume (million metric tons)



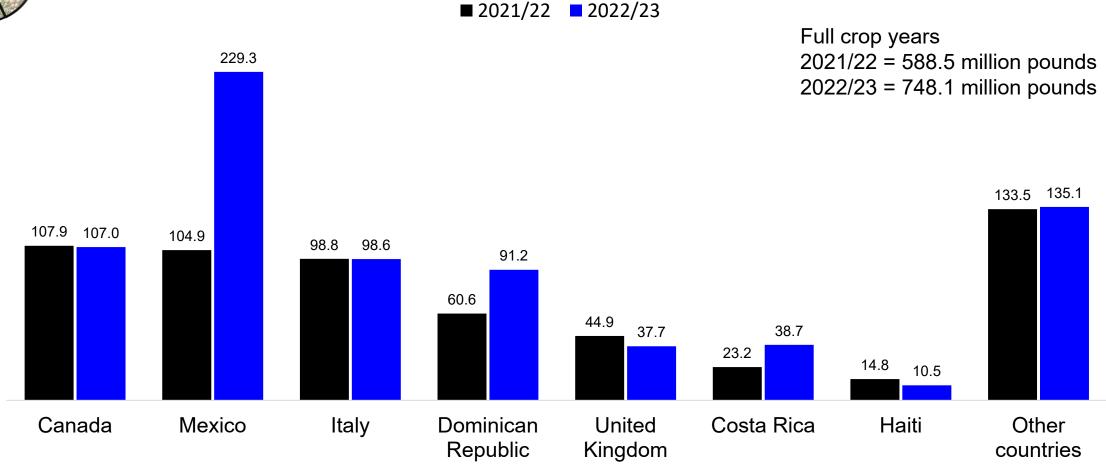
Source: USDA, Economic Research Service using data from FAOStat, Food and Agriculture Organization of the United Nations.

1/Includes dry beans, Bambara beans, broad beans and horse beans, chickpeas, cowpeas/blackeye peas, and pigeon peas.

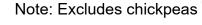




#### U.S. dry bean crop year export volume: Top markets



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.

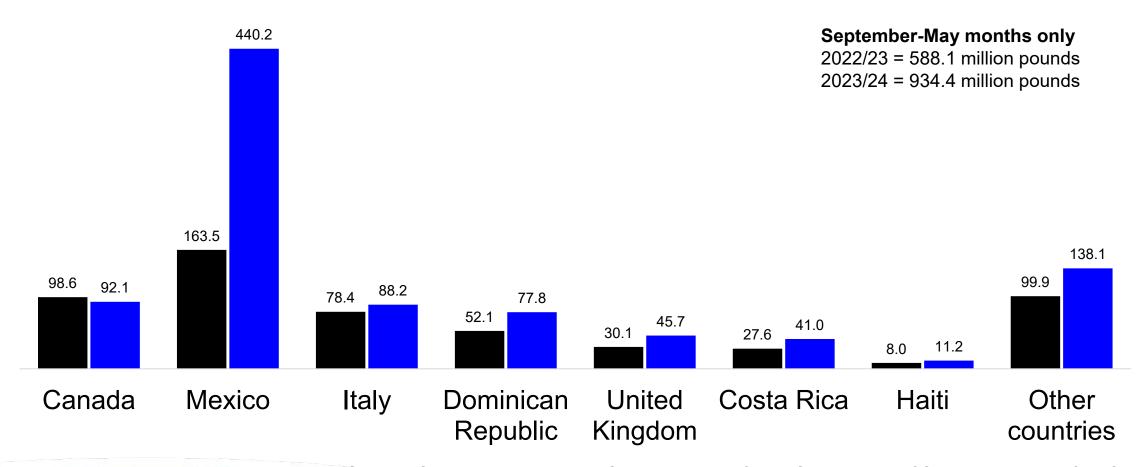






#### U.S. dry bean crop year export volume: Top markets

**■** 2022/23 **■** 2023/24



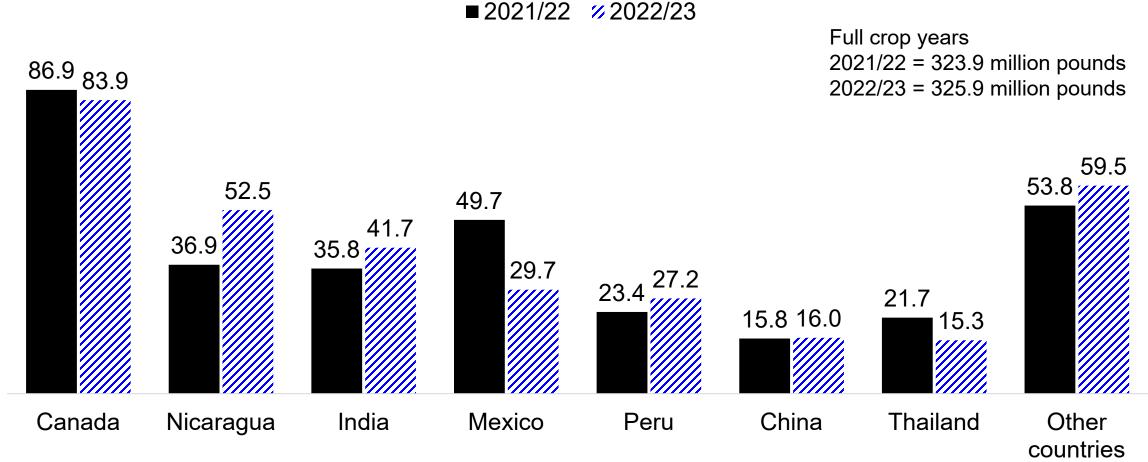
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.

Note: Excludes chickpeas





#### U.S. dry bean crop year import volume: Top markets



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.

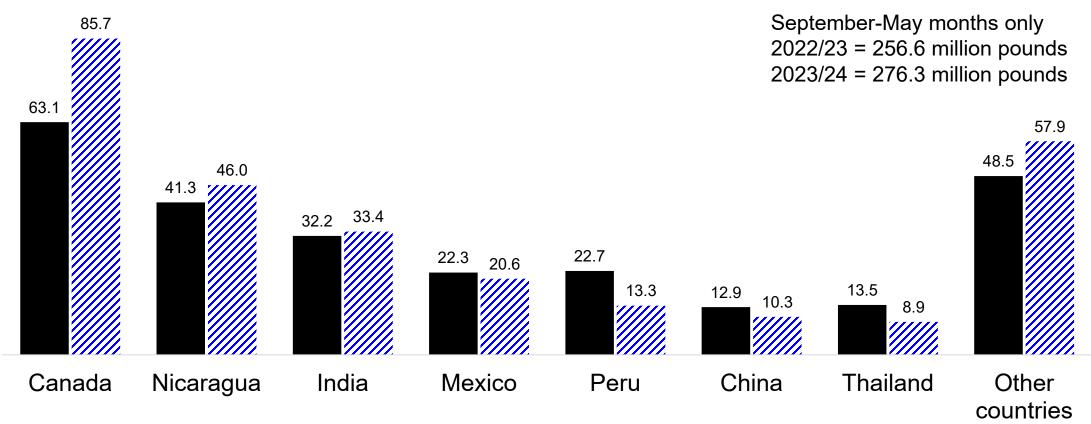
Note: Excludes chickpeas





#### U.S. dry bean crop year import volume: Top markets

**2**022/23 **2**2023/24



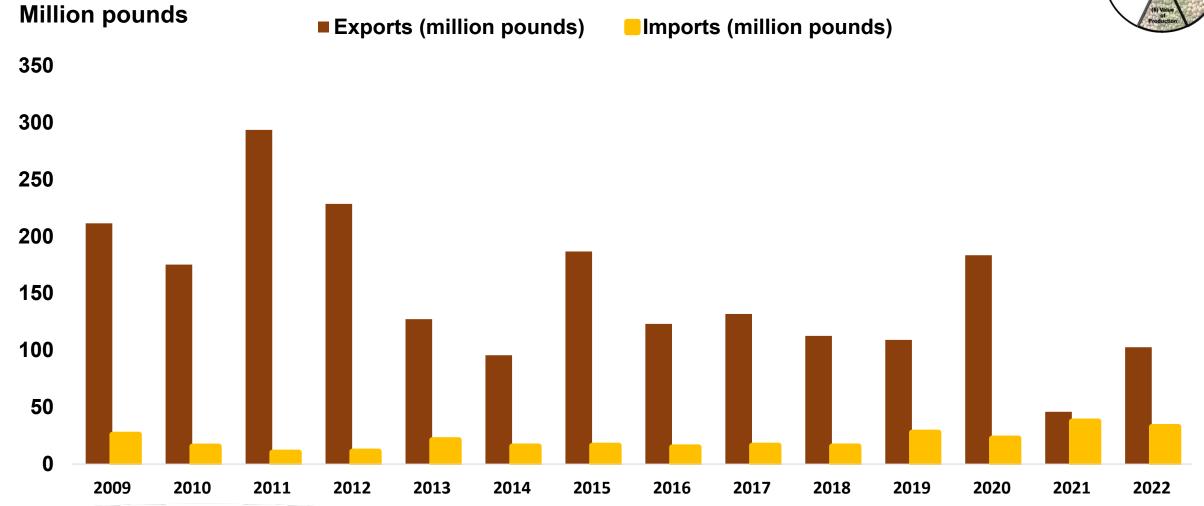
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.

Note: Excludes chickpeas



#### U.S. pinto beans: Crop year trade volume



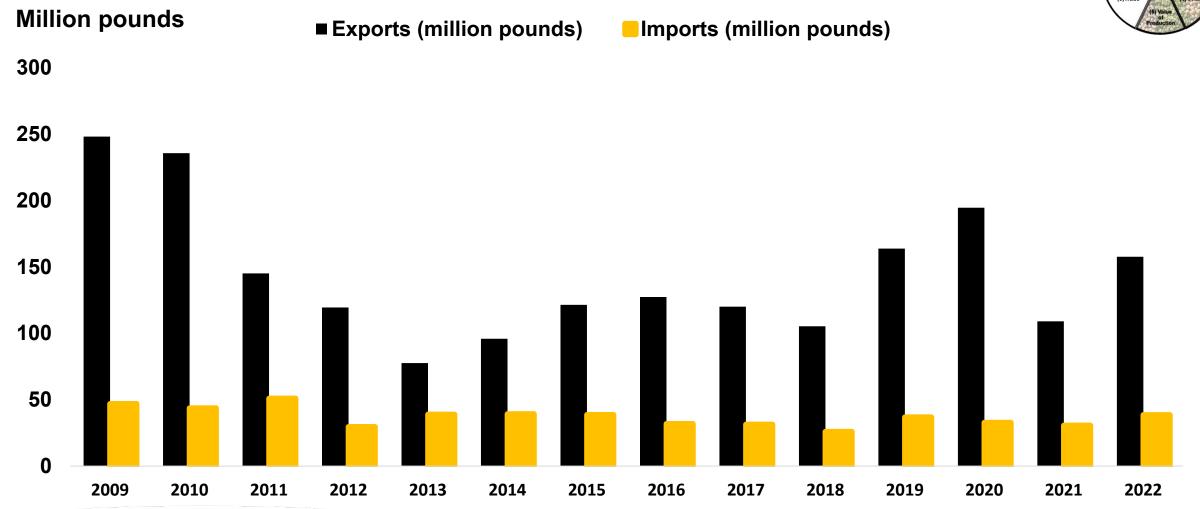






#### U.S. black beans: Crop year trade volume





Source: U.S. Department of Commerce, Bureau of the Census.





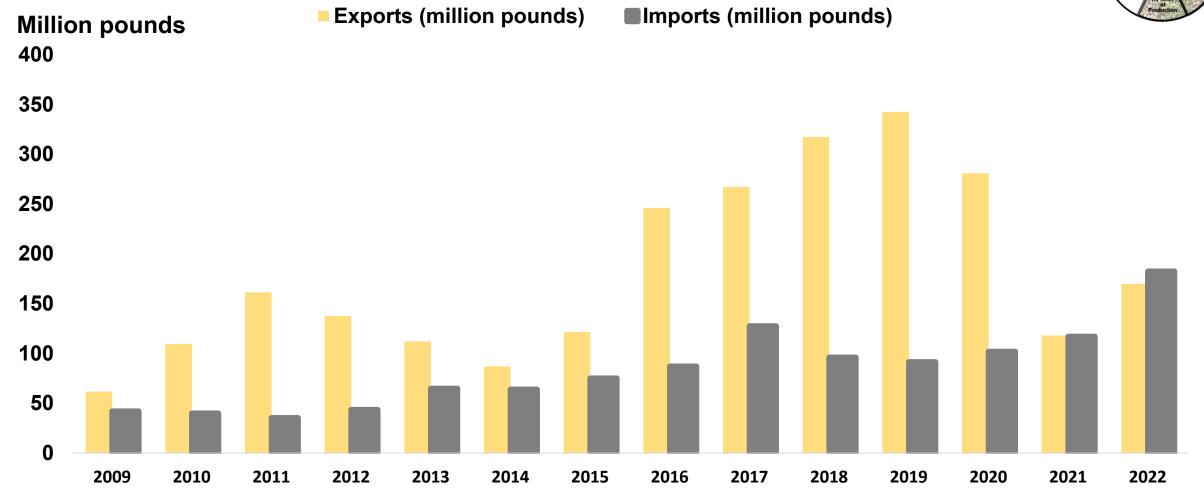






#### U.S. chickpeas: Crop year trade volume





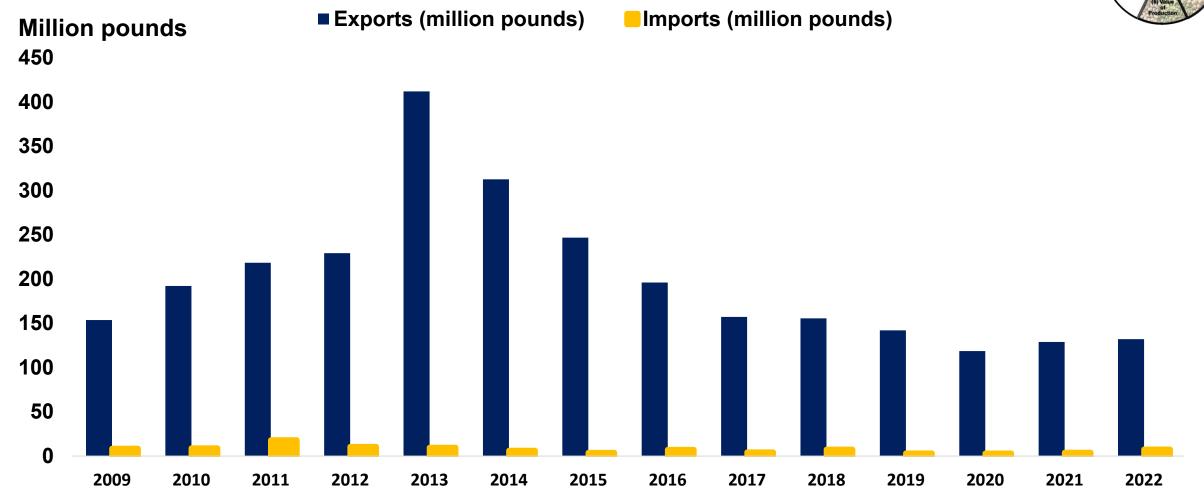






#### U.S. navy beans: Crop year trade volume





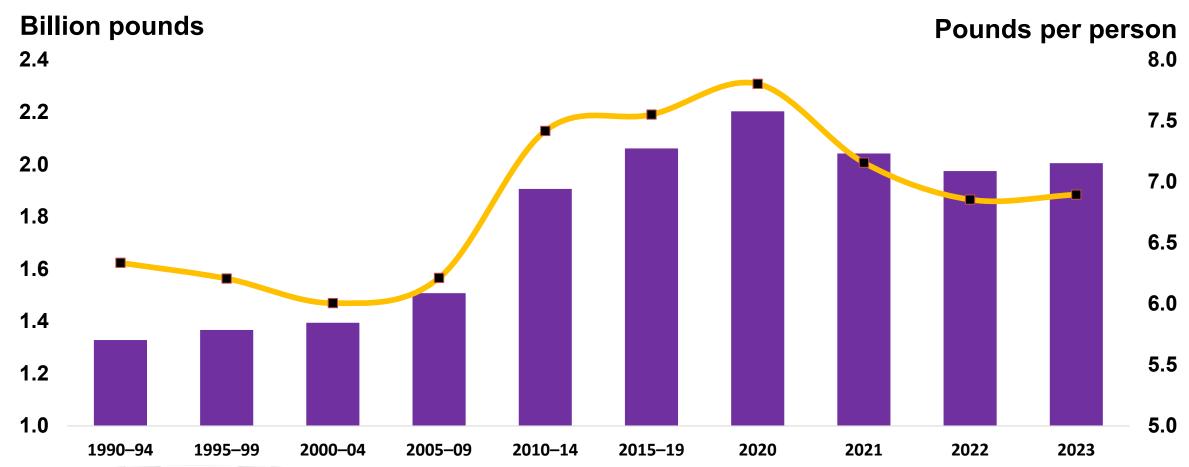




#### U.S. dry beans: Domestic and per capita availability



■ Domestic availability (left axis - billion pounds) - Per capita availability (right axis - pounds per person)





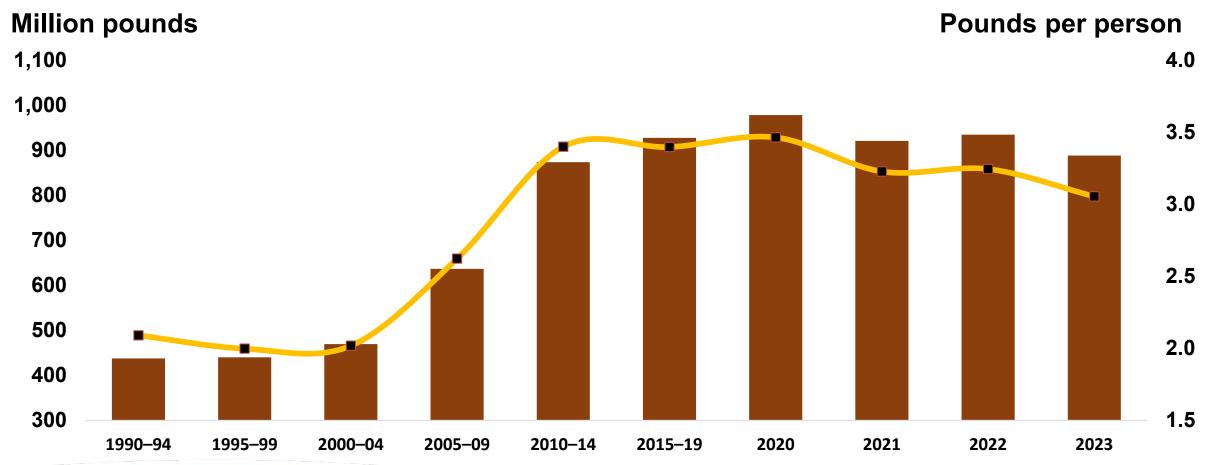








■ Domestic availability (left axis - million pounds) ■ Per capita availability (right axis - pounds per person)







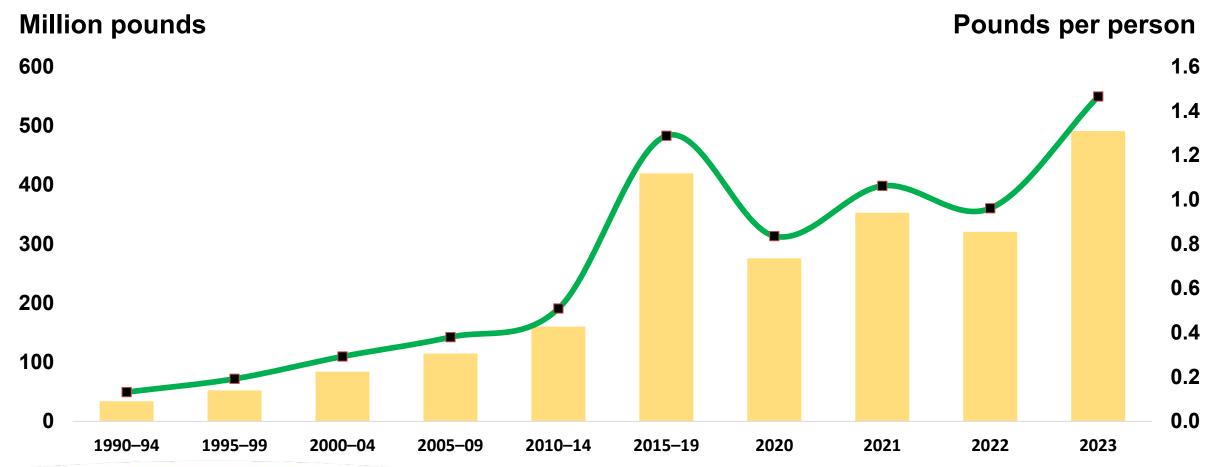








Domestic availability (left axis - million pounds) —Per capita availability (right axis - pounds per person)







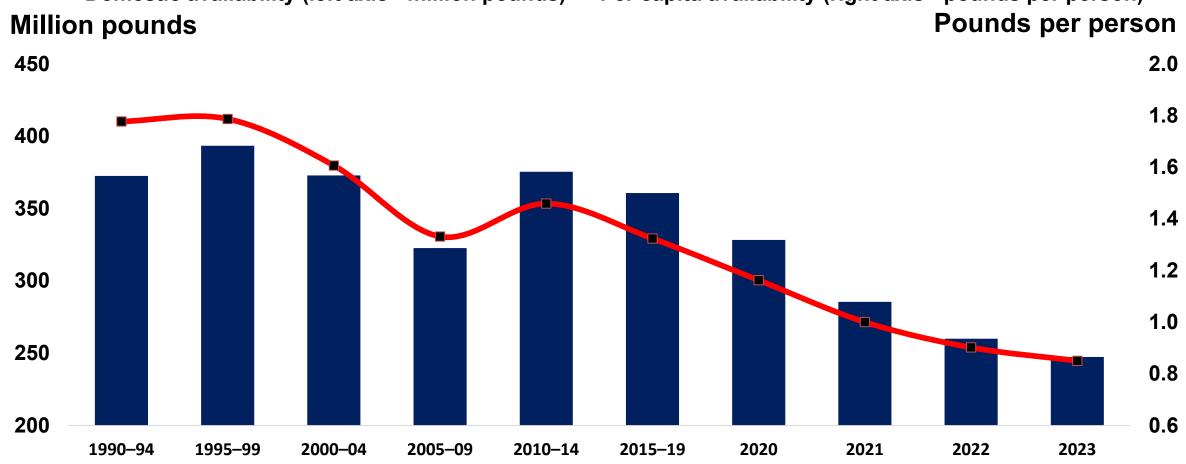




#### U.S. navy beans: Domestic and per capita availability



■ Domestic availability (left axis - million pounds) -- Per capita availability (right axis - pounds per person)







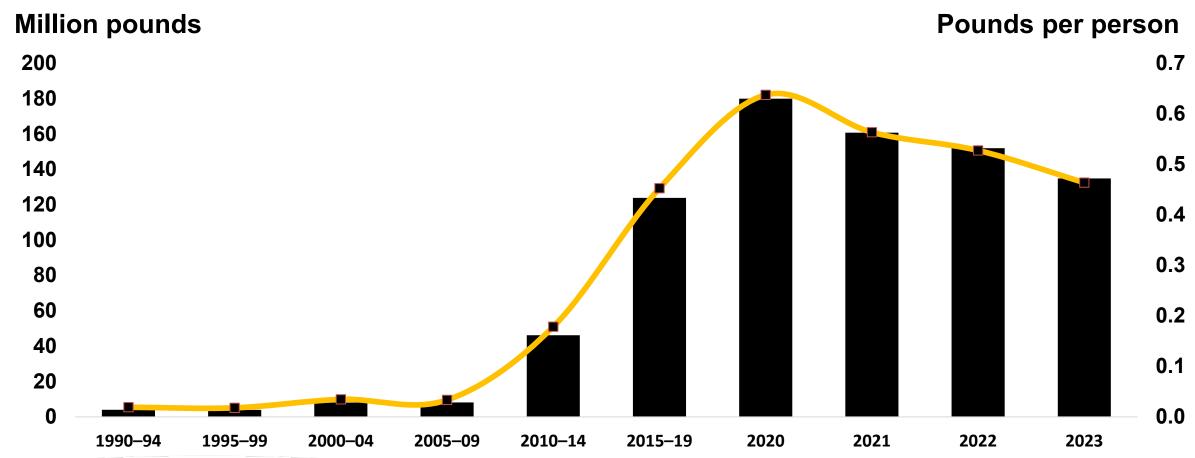








■ Domestic availability (left axis - million pounds) ■ Per capita availability (right axis - pounds per person)





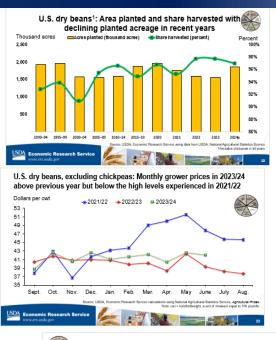


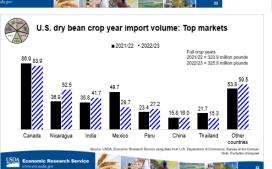


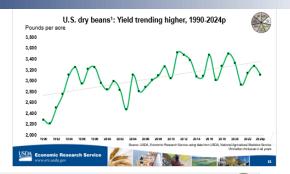


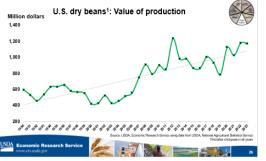
## Recap, Resources, and Reach Out









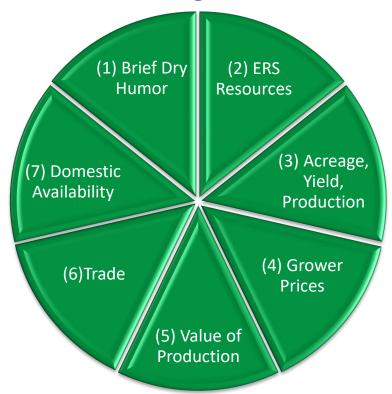


#### **Economic Research Service**

www.ers.usda.gov

#### Recap, Resources, and Reach Out

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www.ers.usda.gov/ data-products/ vegetables-and-pulses-data/



www.ers.usda.gov/ data-products/ charts-of-note



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