COLORADO
DRY BEANS
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Colorado
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COLORADO BEAN WEEK 2025

Written by info@coloradodrybeans.org on June 22, 2025

The Colorado Dry Bean Committee is thrilled to announce this year's COLORADO BEAN WEEK! Governor Jared Polis has proclaimed September 22 – 28, 2025 as Colorado Bean Week. Join us in celebrating, and please help us spread the word!

As you can see in the State of Colorado Proclamation below, beans are amazing for a wide variety of reasons, including their importance to Colorado agriculture and how they can provide big wins for both environmental and human health.

WHEREAS, September and October are the bean harvest period in Colorado, this is an ideal time to highlight the benefits of beans and showcase their importance in thriving local food systems to Colorado's producers, processors, and consumers; and

WHEREAS, Colorado dry bean producers grow numerous types of beans, including pinto, Mayocoba, light red kidney, great northern, black, and others, on 58,000 acres of dry and irrigated farmland in 30 Colorado counties; and

WHEREAS, Colorado dry beans are a sustainable crop with a key role in crop rotation and improving soil health, and can help reduce water usage, fertilizer, greenhouse gas emissions, and food waste; and

WHEREAS, Colorado beans are a nutrient-dense food that can benefit public health through the promotion of healthy weight management and gut health and the reduction of chronic disease rates; and

WHEREAS, beans are an affordable and accessible source of protein, dietary fiber, and other key nutrients critical to human health; and

WHEREAS, beans have a rich global culinary history and are culturally relevant to cuisines enjoyed by diverse populations in our state; and

WHEREAS, the state of Colorado and Colorado Proud support the Colorado bean industry and the role of dry beans in crop rotations, sustainable farming, and food production throughout Colorado;

Therefore, I, Jared Polis, Governor of the State of Colorado, do hereby proclaim the period of time between September 22 and September 28, 2025, as

COLORADO BEAN WEEK

in the State of Colorado.

GIVEN under my hand and the Executive Seal of the State of Colorado, this twenty-second day of September, 2025

Jared Polis
Governor

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On the cover: ARTWORK by Art Lemoid

COLORADO BEAN NEWS

July 22, 2025

Welcome to the latest edition of Colorado Bean News, your comprehensive resource for all aspects of dry bean production in the Centennial State. As we near the end of the growing season, with harvest typically commencing in September, this expanded issue delves deeper into late-season strategies designed to optimize yields, maintain crop quality, and enhance profitability.

Colorado's dry bean sector, primarily featuring pinto beans alongside varieties such as light red kidney, navy, and black beans, plays a vital role in our agricultural landscape. With a legacy spanning over a century of commercial cultivation, our beans are celebrated for their striking color and exceptional taste, attributable to our unique high-altitude and quality irrigation water. Whether you're an experienced producer or entering the field, these detailed tips will help secure a successful season close.

Late-Season Dry Bean Production Tips

As the growing season progresses into its final stages, prioritizing plant health is crucial for maximizing yields and quality. In Colorado, where conditions can shift rapidly, late-season management focuses on mitigating risks from pests, diseases, and environmental stresses. Wet and cool weather in the latter part of the season often triggers white mold outbreaks, so vigilant field monitoring is essential. Additionally, late-season irrigation should taper off to encourage maturity without delaying harvest.

Late season weed control may necessitate limited hand labor to avoid harvest complications, but avoid walking in wet fields to reduce potential for disease spread. For fields with Palmer amaranth, even 1% germination can lead to thousands of plants the following season, so thorough end-of-season cleanup is vital.

Late-Season Pest and Disease Management Strategies	Detailed Tips and Thresholds
White Mold	Promote airflow by avoiding dense canopies; apply fungicides during cool, wet periods; rotate away from sunflowers.
Rust	Use resistant varieties; scout weekly; plant within May 25-June 15 window to reduce epidemics.
Bacterial Blight	Certified seed mandatory; 3-year rotation; minimize plant wounds and stress.
Western Bean Cutworm	Scout for larvae; treat at 2+ per row foot; consider Bt varieties where available.
Bean Leaf Beetle	Monitor late-season pod chewing; scars can lead to fungal infections; mild cases result in seed staining.

Pre-Harvest Considerations

Pre-harvest planning is pivotal for a smooth transition to harvest, focusing on maturity assessment, variety performance, and risk mitigation. Beans reach harvest readiness when 33-50% of pods yellow, ideally pre-frost to avoid damage. In Colorado, pinto beans with upright architectures allow for easier direct harvesting due to taller plants and pod positioning, and early harvest minimizes splitting and frost-related losses. Direct harvest demands level fields, uniform irrigation, and robust weed control to prevent equipment issues. For direct harvest, mature plants (80% pod color change, 80-90% leaf drop), are preferred and desiccation may be warranted. Rotation every 3-4 years disrupts white mold disease cycles; avoid sunflowers post-beans due to increased white mold risks in future bean crops.

Pre-Harvest Maturity Indicators	Key Actions
Pod Yellowing (33-50%)	Scout fields; prepare equipment; monitor weather for frost risks.
Leaf Drop (80-90%)	Consider desiccation; ensure uniform maturity across fields.
Soil Conditions	Test pH/salinity; ridge soil for root support if needed.
Variety-Specific	Upright types for direct harvest efficiency.

Harvest Aid Chemical Application

Some Colorado dry bean growers face challenges with weed control and uneven crop maturity, increasing the need for pre-harvest herbicide applications, or "harvest aids," to desiccate weeds and green plant tissue for direct harvesting. Five herbicides are labeled for this purpose: Gramoxone Inteon (paraquat), Valor (flumioxazin), Aim (carfentrazone), glyphosate, and Sharpen (saflufenacil). However, caution is needed to avoid illegal residues, especially with glyphosate, which can lead to export rejections if applied before the hard dough stage (30% moisture or less). Sharpen lacks export clearance outside North America due to

See **Harvest** on Page 4

Harvest from Page 3
missing maximum residue levels (MRLs). Always check with your local crop production specialist before using chemical harvest aids.

HERBICIDE DETAILS:

- Gramoxone Inteon: Fast-acting, contact herbicide; 1.2-2 pt/A with non-ionic surfactant; apply when 80% pods are yellowing, ≤40% (bush) or ≤30% (vine) leaves green; 7-day pre-harvest interval (PHI); restricted-use pesticide.
- Valor: Effective for bean desiccation; 1.5-2 oz/A with methylated seed oil; similar application timing as Gramoxone; 5-14 days for maximum desiccation; rotation restrictions (e.g., 4-8 months for sugarbeets); requires thorough sprayer cleanup.
- Aim: Least effective; 1-2 fl oz/A with MSO; similar application timing; 3-day PHI.
- Glyphosate: Risk of illegal residues if misapplied; max 0.75 lb a.e./A (22 fl oz/A Roundup PowerMax); 7-day PHI; apply at hard dough stage.
- Sharpen: Not recommended for export beans due to MRL issues.

Combinations of herbicides are sometimes used but rarely show added benefits. Growers must follow the most restrictive product's guidelines to ensure compliance and avoid residue issues, especially for export markets.

Pre-Harvest Field and Irrigation Management

Late-season irrigation management for dry beans in Colorado is critical to balance yield potential, disease prevention, and timely crop maturity, plus late-season irrigations may delay the final maturity date. Here are key considerations based on available information:

- Water Requirements: Dry beans require 14 to 18 inches of soil moisture over the growing season, depending on the cultivar. Each additional inch of irrigation can increase yields by 150 to 300 pounds per acre, depending on bean class and cultivar. However, late-season irrigations can delay maturity, so careful timing is essential.
- When to Stop Irrigation: Cease irrigation when 80% of pods are yellowing and mostly ripe, or when 50% of leaves are yellowing. This prevents delayed maturity and reduces water use when beans are no longer actively drawing moisture from the soil.
- Disease Management: Late-season irrigation, especially during flowering and pod formation, can increase the risk of diseases like white mold and rust. To mitigate:
  - Avoid irrigation during flowering if white mold is a concern. Instead, fill the soil profile with water before flowering and resume after pod set.
  - For rust, caused by Uromyces appendiculatus, time sprinkler irrigation to allow foliage to dry before nightfall, as prolonged leaf wetness (>10 hr) promotes rust development.

Equipment Preparation for Harvest

Preparing equipment for dry bean harvest in Colorado requires careful attention to ensure efficiency, minimize seed loss, and maintain bean quality. Following are guidelines to equipment preparation based on common practices and considerations for Colorado's dry bean production, particularly for pinto, mayocoba, and other varieties grown in the state.

1. PRE-HARVEST EQUIPMENT INSPECTION AND MAINTENANCE

- ***Combines:***
  - Check and adjust the combine's concave clearance, cylinder speed, and airflow to minimize seed cracking, splits, and earth-tag (soil stains). Dry beans require gentle handling to maintain quality for edible markets.
  - Inspect the header for wear, ensuring it can cut low to capture pods close to the ground, which is critical for direct harvest.
  - Calibrate the automatic cutting height control on flexible headers to adapt to uneven terrain.
  - Clean the combine thoroughly to remove debris, weed seeds, or other crop residues to prevent contamination.
- ***Windrowers/Cutters:***
  - Inspect rods and blades on rod cutters (e.g., Pickett One-Step) for sharpness and alignment to ensure clean cutting and minimal shattering.
  - Check hydraulic systems and bearings for leaks or wear.
  - Adjust the windrower to form uniform windrows that dry evenly and are easy to pick up during combining.
- ***Threshers/Cleaners (Small-Scale):***
  - For small-scale growers, ensure threshers (e.g., modified chipper-mulchers) are free of rust and debris, with sharp blades and secure collection boxes.
  - Test airflow on cleaners to separate beans from chaff, stones, and dirt effectively.

2. CALIBRATION AND SETTINGS

- ***Combine Settings:***
  - Set cylinder speed to 300–500 RPM (slower than for cereals) to reduce seed damage.
  - Adjust concave clearance to 0.5–1 inch, depending on bean variety and moisture content (typically 14–18% at harvest).
  - Optimize fan speed to remove light debris without blowing beans out the back.
- ***Header Adjustments:***
  - Lower the header to capture low-hanging pods, which is critical for varieties like pinto beans which set pods close to the ground. Use floating headers or hold-down rods for consistent feeding.
  - For direct harvest, ensure the header is level and responsive to terrain changes to minimize losses.
- ***Windrower Settings:***
  - Adjust cutting height to avoid soil pickup, which can cause earth-tag on beans.
  - Set windrow width to match the combine's pickup header for efficient combining.

3. CONSIDER FIELD AND CROP CONDITIONS

- Moisture Content: Harvest when beans are at 14–18% moisture to avoid combine blockages and seed damage. Beans

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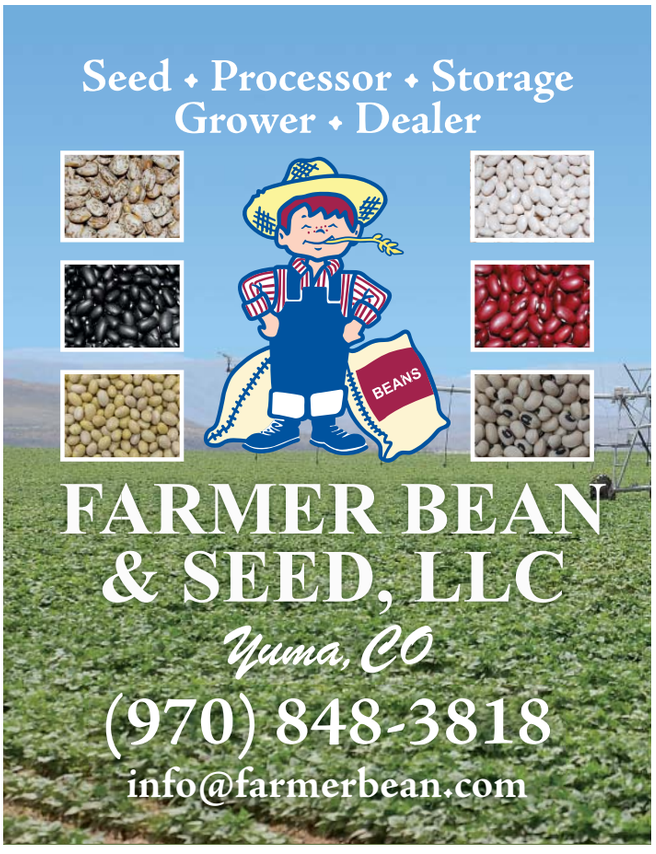

too dry (<14%) may shatter, while those too wet (>18%) risk mold.
- Timing: Colorado's harvest typically occurs in the fall (September–October). Monitor weather to avoid rain or early snow, which can wet windrows and increase losses.
- Weed Management: If fields are weedy, consider applying glyphosate (not for seed crops) when 90% of pods are dry to aid harvesting. Ensure equipment is clean to avoid weed seed spread.
- Soil Conditions: Colorado's well-drained soils suit dry beans, but ensure equipment tires or tracks are suitable for sandy or loamy soils to avoid compaction.

4. ADDITIONAL TIPS

- Test Runs: Before full harvest, test equipment on a small field section to fine-tune settings and check for issues.
- Training: Ensure operators are trained on equipment specific to dry bean harvest, as settings differ from other crops like corn or wheat.
- Sustainability: Use conservation tillage equipment if practicing no-till or reduced-till systems, which are viable for dry beans in Colorado.
- Safety: Check all equipment for safety features (e.g., guards, emergency stops) and ensure operators wear appropriate gear.

By thoroughly preparing and calibrating equipment, Colorado growers can optimize dry bean harvest efficiency, reduce losses, and maintain high-quality beans for markets.

Estimating Bean Yield:

- Bean yield is estimated by calculating seeds per pod, pods per plant, and plants per 1/1,000 acre, then scaling to pounds per acre.
- Count plants in a row length equivalent to 1/1,000 acre (varies by row width, e.g., 87 ft for 6-inch rows). Average five counts across the field.
- Randomly select five plants from five locations, count pods and seeds per pod, and determine seeds per plant.
- Use the formula: (seeds per pod) × (pods per plant) × (plants per 1/1,000 acre) × 1,000 ÷ seeds per pound = yield in pounds per acre.
- Seeds per pound vary by cultivar; use reported values for estimates. Count more plants for better accuracy.

Harvesting Methods:

- Beans are harvested by undercutting/windrowing then combining, or direct combining, at 15–18% moisture to minimize seed damage.
- Harvest before frost to avoid processing issues. Beans are ready when most pods are yellow, with some dry; too many dry pods cause shattering.
- Shattering can be reduced by harvesting in damp conditions (e.g., early morning).

UNDERCUTTING AND WINDROWING:

- Common for indeterminate (Type III/IV) cultivars. Undercutting cuts roots 1–2 inches below soil; windrowing follows or is simultaneous.

See **Undercutting** on Page 6

Undercutting from Page 5

- Windrow sizes depend on crop density and combine size. Beans stay in windrows until stems dry enough for combining.

DIRECT HARVESTING:

- Used for upright or bush-type beans (e.g., navy, black) with upright architecture, using combines with flexible cutter bars and pickup/air reels.
- Losses range from 5–15% with optimized equipment (air reels, lifter guards), but can reach 20–40% with conventional headers.
- Field surveys in North Dakota showed higher losses with direct harvesting (101–347 lb/acre) compared to conventional (24–219 lb/acre).
- Cultivar choice and environmental conditions may affect losses in direct harvesting.

COMBINE OPERATION:

- Conventional grain or specialized bean combines can be used. Specialized combines use gentler mechanisms (e.g., belts instead of augers).
- Start combining at 18% moisture, adjusting cylinder speed (slow as possible) and concave clearance as beans dry.
- Recommended settings: cylinder at 5/8 inch, sieve at 7/16 inch, high fan speed directed forward. Check tailings to avoid re-threshing threshed beans.
- Excessive splits/checks indicate high cylinder speed, tight concave clearance, or improper tailings return.
- Handle beans gently to avoid damage during unloading; cushion falls and keep elevator chains snug.

Harvest Loss

This section provides guidance for measuring seed loss during dry bean harvest to estimate field losses accurately.

KEY STEPS FOR MEASURING HARVEST LOSS:

1. Select Sites: Choose three random sites in the field.
2. Outline Area: At each site, mark a 1-foot-long area spanning the full effective width of the harvest implement (e.g., 30 feet for 12 rows of 30-inch spacing). Examine the entire pass, not just behind the threshing section.
3. Count Seeds: Search the soil surface and loosened soil for bean seeds and unthreshed pods; count all seeds.
4. Calculate Average: Divide total seeds by the area's square footage to get seeds lost per square foot. Average across the three sites.
5. Convert to Loss: Use the Field Loss Table to translate average seeds per square foot into pounds per acre, based on seed size (seeds per pound). For example, 1 pinto bean seed/sq ft at 1,200 seeds/lb equals ~36 lb/acre loss; multiply for higher counts (e.g., 3 seeds/sq ft = 108 lb/acre).

Field Loss (Pounds/Acre) by Seeds Lost per Square Foot and Seed Size

Seed Size	Seeds/sq ft			
Seeds/lb	0.5	1	5	10
800	27	55	272	545
1,200	18	36	182	363
1,600	14	27	136	272
2,000	11	22	109	218
2,400	9	18	91	182
2,800	8	16	78	156

ALTERNATIVE METHOD:

For a quicker but less accurate estimate, use a 1-square-foot frame placed randomly at 4-5 field locations (including areas not directly behind the combine to avoid overestimation). Count seeds inside, average them, then calculate loss using the formula: (Average seeds/sq ft × 43,560 sq ft/acre) ÷ Seeds per pound. Refer to published sources for seeds per pound by market class.

Accurate loss measurement helps optimize harvest efficiency, and losses should be sampled broadly to avoid bias.

DRYING, STORING AND HANDLING DRY BEANS

These are general guidelines for drying, storing, and handling dry edible beans (primarily pinto and navy beans) to maintain quality, focusing on temperature, moisture, and mechanical damage prevention.

STORAGE RECOMMENDATIONS

- Temperature and Moisture for Quality Preservation: Pinto beans should be stored at 40°F or cooler to retain color (measured by Hunter-L values) and cooking quality. Whiteness degrades over time at various temperatures (20–80°F) and moistures (14–18%); higher temps cause faster darkening (e.g., -10.8 change at 80°F/18%). Cooking times also increase, generally after 10 months (from initial 18.4 minutes), with minimal extension at lower temps (e.g., 22.6–29.6 min at 20°F) but significant at higher temps (e.g., 168.5 min at 80°F/18%).
- Alternative Conditions: If cooling isn't possible, keep moisture at ~13% and 70°F to prevent mold. Store in darkness to avoid light-induced darkening.
- Management Practices: Monitor bean temperature and moisture biweekly in fall/spring/summer and monthly in winter. Aerate to cool when outdoor temps are 10°F below bean temp in fall, aiming for 40°F (short-term) or 25°F (long-term).

HANDLING TO MINIMIZE MECHANICAL DAMAGE

- Optimal Conditions: Handle at ≥16% moisture and warm temperatures to reduce seed coat cracks. Damage rises sharply below 15% moisture at 75°F (e.g., 26% damage for pinto at 12%). Also, there may be increased damage at lower temps for 16% moisture beans (e.g., 41% for pinto at 10°F).
- Equipment Tips: Use belt conveyors for gentleness; install bean ladders in bins to cushion impact; run augers slowly and full; adapt elevator legs to reduce velocity and slow beans at spouts.

DRYING METHODS

- Natural Air Drying: Effective mid-September to mid-October. Continuous fan operation dries to 12–14% moisture; shutting off during warm/dry periods achieves 15–16% but extends time. Run fans at night for target moisture (use equilibrium moisture tables for estimates). Avoid supplemental heat to prevent over-drying. Pause during rain/fog but limit to ≤2 days to avoid spoil-

age. Observe minimum airflow rates (e.g., 2.5 cfm/bu for 22% moisture) and estimated drying times (23–30 days)to protect stored beans from damage.
- System Design: Airflow static pressure matches soybeans; design accordingly.
- High-Temperature Column Drying: Keep drying air RH ≥30% by heating ≤20°F above ambient. Monitor continuously for damage; process is slower than for cereal grains.

Production contracts

Dry bean production contracts are agreements between farmers (sellers) and buyers (typically companies) for growing and delivering dry beans. Here's an overview:

- **Purpose:** These contracts outline the rights and responsibilities of both parties, specifying how dry beans are produced, delivered, and paid for.
- **Key Provisions:**
  - o Contract Understanding: Contracts outline the rights and responsibilities of both parties. Terms vary among companies and may change over time, so discussing provisions with the buyer beforehand prevents misunderstandings.
  - o Production Requirements: Farmers must use accepted agronomic practices, registered crop protection products, and sometimes specific cultivars, seeds provided by the buyer, or acceptable seed sources. Stricter food safety standards may lead to more detailed production provisions in the future.
  - o Act-of-God Clause: Some contracts excuse farmers from delivering the full contracted amount due to uncontrollable events (e.g., hail, drought, disease), but available production must still be delivered, with prompt notification to the buyer (often within 10 days) to activate this clause.
  - o Grading and Quality Standards: Contracts typically follow USDA Federal Grain Inspection Service standards, but buyers may impose stricter specifications. These should be clearly listed or requested from the buyer.
  - o Delivery Period: Delivery can occur at harvest (most common), during a set window (e.g., early October), or on a "buyer's-call" basis, where the buyer schedules delivery, requiring farmers to store beans until requested.
  - o Pricing and Payment: A fixed-base price is set, with premiums or discounts based on quality at delivery. Payment is typically made shortly post-delivery, with options for delayed or deferred payment.
- **Importance:** Understanding terms is critical, as they vary by company and may change over time. Discussing provisions with the buyer helps avoid misunderstandings.

These contracts ensure clarity in production, quality, and delivery expectations while addressing risks like crop failure. Production contracts are common in the dry bean industry, and understanding their provisions is crucial.

Visit to Caribbean region

A development trade mission organized by the U.S. Dry Bean Council (USDBC) to the Dominican Republic and Jamaica, was held from February 10-15. The primary purpose was to bolster existing strong trade relationships in the Caribbean region, address logistical challenges such as import permit delays, ensure timely delivery of U.S. dry beans to prevent spoilage, and reinforce the preference for high-quality U.S. beans over competitors. This mission is particularly important under the Dominican Republic-Central America Free Trade Agreement (DR-CAFTA), which has driven a significant increase in U.S. agricultural exports to the region since 2007. The delegation worked with local customers and the Foreign Agricultural Service to resolve issues with the Dominican Ministry of Agriculture, which had been delaying permits and causing containers of beans to remain in storage, risking quality degradation due to the perishable nature of the product.

The mission was led by Jose Barrios Turk, the South American representative for the USDBC; and included trade team members, Greg Ackerman from Michigan Bean Commission; David Scholand from Central Valley Bean in North Dakota; and, Jay Ewald from Northern Feed and Bean in Colorado. Activities focused on meetings with buyers, such as Casa Chepe in the Dominican Republic, to express

See **Caribbean** on Page 9

How to Celebrate Colorado Bean Week?

Are you looking for ways to join in the celebration of Colorado Bean Week this September? Here are a few ideas to get you started.

» Enjoy Colorado beans in the kitchen. If you're looking for recipe inspiration, we've got you covered! Beans are excellent in countless recipes, including Amazing Kidney Bean Dressing, Buffalo Beans, Chili Crunch Pinto Bean Pockets, Cinnamon Banana Bean Bread, Whipped Mayocoba Bean Butter Board, and many more. You can explore other delicious bean recipe ideas here.

» Watch this farm-to-table video about Colorado beans. The video shares the story of Colorado beans being made into tasty, healthy, local products. Check out our YouTube channel for many other videos, too.

» Browse our past events to see what Colorado Beans has "bean" up to. We have done some fun events, like the Bean Summit and participating in CSU Ag Day. Come join us at future events!

» Follow and tag us on social media. We share photos from the field and recipe ideas, keep you up-to-date about upcoming events, and more. You can find us on Facebook, Instagram, and YouTube. Please tag us in your posts and stories to help spread the word about Colorado Bean Week!

» Subscribe to our newsletter. These brief e-newsletters are sent out every other month.

» Continue the celebration! Colorado Bean Week is a reminder of how important beans are to local food systems, and how they can support both human and environmental health. The party shouldn't stop after September 28th, though. Consider making beans a regular and delicious part of your routine.

USDBC Mexico Monthly Report

Excerpt from 2025 Spring-Summer Beans – July 4th Update

-Reportedly, **soils** in Zacatecas and Durango have a preparation progress of over 70%. They took advantage of the showers received in June, thanks to the different systems that have brought a good amount of rain to central Mexico, with an important reduction of drought in the bean states, in comparison with two weeks ago and a big improvement compared with the previous year. Producers are prepared to plant as much as possible, in the next 4 to 6 weeks, even into August, as it has happened in the past.

-No **planting** intention published however, total planting this year can be calculated around 1 million hectares, similar to last year's. Zacatecas is reportedly expected to plant 600 thousand hectares: Durango 200 thousand hectares, and Chihuahua is hoping to complete over 100 thousand hectares, excited for the amount of rain that has helped to sightly recover moisture in some areas.

- **Small bean** producers in Zacatecas, Durango and Chihuahua, started receiving San Luis Black and Pinto Saltillo seed in the last days of June, with 75% subsidy: 50% paid by the federal government, 25% by the state government and 25% the producers. Zacatecas was the main receiver of the certified seed, however, producers considered that seed was low-quality. Durango reportedly received less subsidized seed and is completing with 2024 pinto Saltillo beans, to plant this cycle.

-**Pinto Bean prices** in Chihuahua for the 2024 volumes available are MX$22,000 / US$1,100 per MT, way under the price guarantee of MX$27,000 / US$1,350 per MT. In Zacatecas and Durango pinto prices are as low as MX$17 thousand / US$850 per MT. Black bean prices for the 2024 volumes available in Zacatecas, are as low as MX$16 thousand / US$800 per MT. Irrigated beans in Zacatecas, Durango and Chihuahua, that account for around 10% have been planted according to SIAP's latest report below, and should be ready to be traded in August

-SIAP's preliminary progress report until the end of May, shows that 157,099 hectares had been planted.

-**Weather**. During the second half of June 2025, above-average rainfall was recorded in a large part of Mexico, particularly in the northern Pacific, western, central, eastern, southern, southeastern and southeastern regions. This was due to the occurrence of various meteorological systems, such as Tropical Storm Dalia and Hurricane Flossie, which moved close to the Mexican Pacific coast; as well as the entry of Hurricane Erick on the coast of Oaxaca and tropical storm Barry in the north of Veracruz, in addition to low pressure channels and the passage of four tropical waves (No. 4 to 7). This led to a reduction in areas with moderate to exceptional drought (D1 to D4) in southern Sonora, Chihuahua, Sinaloa and Durango. Similarly, there was a reduction in areas with abnormally dry conditions (D0) and moderate drought (D1) in the west, center, east and southeast of the country.

On the other hand, below-average precipitation was observed in northwestern and northern regions, which caused the persistence of areas with moderate to exceptional drought (D1 to D4) in those regions. As of June 30, 2025, the percentage of areas with moderate to exceptional drought (D1 to D4) at the national level was 21.8%, 15.7% lower than that recorded at the end of the previous fortnight.

The latest Mexico Drought Monitor June 30th, shows that:

- Zacatecas, is now drought-free in 95.4% of its territory, recovering from 100% drought in May 15th, and 55.3% drought in May 31.
- Durango reduced drought, but still suffering drought in 42% of its territory
- Chihuahua still suffering drought in 65% of its territory
- Guanajuato reduced drought -free in 97.5% of its territory
- San Luis Potosi is now drought-free in 94.5% of its territory

CONAGUA's Rain Forecast Summary of the 72-to-96-hour forecast (Monday, July 07 to Wednesday, July 09, 2025)

During the forecast period: The Mexican monsoon will prevail in the

See **Mexico** on Page 11

Caribbean from Page 7

appreciation for ongoing trade, monitor container release issues, and promote the superior quality of U.S. beans.

The Caribbean represents a vital and growing market for U.S. dry beans, prized for their durability, color retention during storage, and adherence to stringent food safety standards. The Dominican Republic, the largest economy in the Caribbean and the seventh-largest in Latin America, is the 14th-largest export destination for U.S. agricultural products overall, importing $2.2 billion in 2024—a 6% increase from 2023. Specifically for dried beans, U.S. exports to the Dominican Republic totaled $53.87 million from September 2023 to August 2024, marking a 10% rise from the prior year, with the majority of pinto and black beans sourced from the U.S.; Jamaica meanwhile, imported $4.46 million in U.S. dried beans over the same period, an 11% increase, focusing mainly on small red beans. However, Jamaica faces competitive pressures from duty-free imports within the Caribbean Community (CARICOM), which impose high tariffs on U.S. products, raising costs.

Challenges highlighted include storage difficulties in the warm Caribbean climate, where non-refrigerated conditions can lead to spoilage, though U.S. beans are favored for better handling in these conditions. Buyers like Casa Chepe echoed this, pointing out that higher-quality U.S. beans retain coloration better during storage, justifying their premium value.

Benefits to Colorado Bean Growers

The mission identified methods to reduce the risk of spoilage and financial losses from delayed shipments, directly supporting stable export flows of Colorado-produced beans, which are in high demand in the Dominican Republic and Jamaica, potentially leading to increased export volumes, given the reported 10% and 11% growth in those markets, potentially boosting revenue and prices for Colorado growers. Additionally, reinforcing buyer preferences for U.S. beans' quality and safety standards helps maintain a competitive edge over lower-cost alternatives, securing long-term market access and demand. For Colorado, which contributes to national production alongside states like North Dakota and Michigan, these strengthened ties foster economic stability, job preservation in farming and processing, and opportunities for expanded production in response to growing Caribbean imports.

Colorado Dry Bean Committee Financial Summary as of 12/31/2024	Actual	Budget	Actual vs Budget
Assessments	$62,386	$35,000	$27,386
Interest net of bank fees	$2	$0	$2
Total income	$62,388	$35,000	$27,388
Administrative	$1,200	$1,200	$0
Audit and legal	$2,000	$2,000	$0
Promotion-Chelsea Didinger outreach program	$10,000	$10,000	$0
Promotion-Colleen Ferriera social media	$2,500	$2,500	$0
Promotion-Colorado Bean Newsletter	$1,000	$1,000	$0
Promotion-Memberships	$525	$375	($150)
Promotion-six restaurants serving bean dishes	$209	$1,500	$1,291
Promotion-outreach expenses	$611		($611)
Refund of assessments			$0
Telephone, postage, printing	$77		($77)
Travel and meetings	$752	$1,000	$248
USDBC dues	$9,020	$9,020	$0
USDBC CAP add-on	$1,723	$2,506	$783
Web maintenance	$196		($196)
Marketing Opportunity fund	$1,677	$3,899	$2,222
Research/grower opportunity fund			
Total expenses	$31,490	$35,000	$3,510
Excess (shortage) of income vs expenses	$30,898	$0	$30,898
Cash on hand	$32,787	$21,000	$11,787
Assessments paid cwt	519,883	291,667	178%
NASS initial forecast - August		567,000	
October revision		583,000	
Final			
RMBDA initial forecast			
NASS acres planted		35,000	

*1 - RMBDA associate membership $225; in the past we have been a Bronze sponsor and member of the CFVGA for $750 an CFVGA membership only would be $150

USDBC MARKET REPORT

South America, Central America, and The Caribbean June, 2025

Executive Summary

As of July 2025, U.S. dry bean exports to Latin America and the Caribbean (LAC) reached 86,052 metric tons between September 2024 and April 2025, a 30% increase compared to the same period in the previous year. This growth was primarily driven by strong performance in major markets such as the Dominican Republic (+36%), Costa Rica (+34%), Guatemala (+85%), Jamaica (+38%), and El Salvador (+31%). Meanwhile, Colombia and Peru saw sharp declines of 27% and 58%, respectively, due to market competition and reduced import demand.

Export value rose from $79.3 million to $93.6 million, marking an 18% increase. The Dominican Republic remained the top market in value, reaching $39 million, followed by Costa Rica ($22.7 million) and Guatemala ($5.3 million). Although Colombia decreased in volume, its export value jumped by 77% due to a higher unit price and product mix adjustment. On the other hand, El Salvador and Haiti showed declining values despite increased volumes, reflecting price sensitivity and shifting sourcing patterns.

The regional product mix was led by black beans, small red beans, and light red kidney beans. While these core varieties held consistent demand,

See **Executive** on Page 11

SUMMARY OF AG TRADE RELATIONS BETWEEN KENYA AND THE USA, WITH FOCUS ON MARKET POTENTIAL FOR U.S. DRY BEANS

OVERVIEW OF U.S.-KENYA AGRICULTURAL TRADE RELATIONS

Kenya is East Africa's economic and logistical hub, with a growing population, rapid urbanization, and a dynamic food retail, processing, and service sector. It serves as a strategic gateway to the broader East and Central African market.

In 2024, Kenya imported $3.59 billion in ag and related products. Consumer oriented food products made up roughly 13% of that value, driven by demand from an expanding middle class and modern retail sector. While the U.S. has a strong reputation for premium quality food products in Kenya, it holds only a small share of this market. U.S. agricultural exports to Kenya have faced barriers such as high tariffs, complex labeling and certification requirements, and strong price competition from regional and European suppliers.

Key features of U.S.-Kenya ag trade:

- U.S. exports are dominated by consumer-oriented products (processed foods, dairy, sauces, condiments).
- The United States accounted for just 2% of Kenya's consumer-oriented food imports in 2024.
- Kenya's retail grocery sector grew 16.3% in 2024, reaching $9.3 billion, with modern chains like Naivas, Quickmart, and Carrefour expanding rapidly.
- The food processing sector was valued at $9 billion in 2024 and is projected to grow at over 7% annually.

Kenya's strategic trade agreements include participation in the East African Community (EAC) Customs Union, COMESA, and the African Continental Free Trade Area (AfCFTA). Tariffs on sensitive products can be high (up to 75% on rice, 50% on corn), and a CET of 35% applies to many processed foods. Non-tariff barriers also exist, such as complex labeling requirements (including mandatory ISM stickers and English/Swahili labeling) and a long standing ban on genetically engineered foods.

REGULATORY CONTEXT FOR PULSES (INCLUDING DRY BEANS)

Kenya's import requirements for pulses such as dry beans include:

- Import Declaration Form (IDF) issued by the Kenya Revenue Authority.
- Pre-export verification of conformity (PVoC) and a Certificate of Conformity (CoC) from a KEBS-appointed agent (SGS in North America).
- Phytosanitary Certificate with additional declarations.
- Non-Genetically Engineered Certificate (required due to a ban on GE foods).
- Customs clearance fees including Import Declaration Fee (2.5% of value) and Railway Development Levy (2.0%).

Beans are among the "cereals and pulses" exempted from Kenya's voluntary product registration program, meaning the standard pre-export verification applies.

POTENTIAL FOR U.S. DRY BEANS IN KENYA

- Kenya is a major dry bean consumer. Beans are a staple in the diet and a critical source of protein for both rural and urban populations.
- Consumption patterns are diversifying in urban areas, with growing interest in convenient, value-added products such as precooked beans, canned beans, and fortified blended foods.
- Kenya imports beans from regional suppliers (notably Ethiopia and Tanzania) that benefit from proximity and lower transport costs. Local production also remains strong but fragmented and quality-variable.
- Price sensitivity is significant, but there is demonstrated demand for higher-quality beans in urban markets, institutional feeding programs, and processing.
- The school feeding sector is a major institutional buyer of pulses.

Findings from the mission to Kenya included:

- Strong interest from Kenyan food processors in test shipments of U.S. navy, black, pinto, and small red beans.
- Opportunities for incorporating U.S. beans into fortified blended foods (e.g., with partners like InstaProducts) for school feeding and retail markets.
- Retail market visits revealed opportunities for differentiation through quality, consistent sizing, and branding.
- Engagement with PABRA (Pan-Africa Bean Research Alliance) to promote demand creation, product development, and nutritional marketing campaigns.
- Institutional buyers such as WFP Kenya expressed willingness to explore inclusion of U.S. dry beans in procurement, especially for school feeding.

OPPORTUNITIES AND CHALLENGES

Opportunities:

- Urbanization and changing diets create demand for convenient, branded, and fortified bean products.
- U.S. dry beans have strong technical advantages: consistent quality, variety diversity, suitability for processing.
- Institutional procurement represents a stable demand source.
- Partnership potential with processors, retailers, and NGOs for Food Aid to Food Trade transitions.
- Strategic alignment with USDA's Market Access Program (MAP) and Regional Agricultural Promotion Program (RAPP) funding.

Challenges:

- High regional competition from neighboring producers.
- Tariffs, import fees, and shipping costs add to landed prices.
- Regulatory requirements including pre-export verification, ISM labeling, and non-GMO certification.
- Limited consumer awareness of U.S. bean varieties.
- Financing constraints among SMEs for importing and processing.

CONCLUSION

Kenya's dynamic and growing food sector offers real market potential for U.S. dry beans, especially when approached through strategic partnerships, capacity building, and tailored marketing. The USDBC's recent mission confirmed strong local interest and laid groundwork for B2B relationships, institutional supply opportunities, and collaborative demand creation with PABRA. With sustained investment in market development and trade facilitation, Kenya could become a priority target market for U.S. dry bean exports and a clear example of transitioning from food aid to food trade.

Mexico from Page 8

northwest of the country, will maintain the probability of heavy to very heavy rains accompanied with thundershowers and possible hail in Sonora, Chihuahua and Durango, in addition to showers in Baja California Sur, forecasting heavy showers on Wednesday in Sinaloa.

Low pressure channels over the Sierra Madre Occidental, a cyclonic circulation in height that will move over the northeast and north of Mexico, divergence and the entrance of humidity from the Pacific Ocean and Gulf of Mexico, will cause showers and strong to very strong rains accompanied with electric discharges and possible hail in the north, northeast, east, center and west of the national territory, forecasting heavy rains on Wednesday in areas of Nayarit and Jalisco. Tropical wave No. 9 will move over the south and west of Mexico, while a new tropical wave will cross the Yucatan Peninsula and the southeast of the country. The interaction of both systems will cause the probability of heavy to very heavy rains in the aforementioned regions, with heavy rains expected on Monday in Chiapas. The low-pressure area with probability of cyclonic development will move westward, away from national coasts and without affecting the Mexican territory.

Agricultural Year Summary Mexican Bean Crop

Mexico's 2025 spring-summer bean crop shows promising progress amid improved weather conditions. June showers have advanced soil preparation to over 70% in Zacatecas and Durango, significantly reducing drought compared to last year. Planting is expected to reach 1 million hectares, with Zacatecas targeting 600,000 ha, Durango 200,000 ha, and Chihuahua over 100,000 ha. Subsidized San Luis Black and Pinto Saltillo seeds have been distributed, though quality concerns persist. By May's end, 157,090 ha were planted, mainly irrigated varieties ready for August harvest. Pinto prices range MX$17,000–22,000/MT (US$850–1,100), blacks at MX$16,000/MT. Forecasts predict continued rains, boosting yields.

Executive from Page 9

other categories like pinto, cranberry, navy/pea, and specialty beans gained relevance in markets such as the Dominican Republic, Guatemala, and Panama. Jamaica continued to rely heavily on small red beans, whereas Haiti's demand was primarily driven by pinto beans.

Argentina and Brazil both influenced market dynamics during this period. Argentina's 2023/2024 drought significantly disrupted its export capacity. However, the 2024/2025 harvest rebounded with a projected 735,000 MT, particularly in black and alubia beans, restoring Argentina's export potential for the next cycle. Meanwhile, Brazil's dry bean exports surged by 147% (Sep–May), reaching a record 141,785 MT. Key gains were made in Venezuela, South Africa, and India, with black beans dominating shipments.

U.S. Dry Beans Monthly Activities Report

Southeast Asia, India, and Pakistan - June 2025

REGIONAL

USDBC SE Asia received approval to support the Cooperative Promotion activity of:

1. Four Points by Sukhumvit 15 (Thailand)
2. The Commercial Company of Suam Ltd. (Thailand)
3. Denis G.M. Company Limited (Vietnam)

MALAYSIA

Food & Drinks Malaysia by SIAL is set to become the leading food and beverage exhibition in Malaysia and the surrounding region. It offers a dedicated platform for industry players seeking market entry into one of Asia's food capitals. The event will take place at the Kuala Lumpur Convention Centre, from July 1 - 3. The FAS Kuala Lumpur office has secured a booth at the exhibition and has reached out to USDBC SE Asia to offer the opportunity to share promotional materials and other resources. Although USDBC SE Asia is unable to attend in person, USDBC SE Asia has arranged for POS materials and a QR code linking to additional information to be displayed at the booth.

PHILIPPINES

Century Pacific Food Incorporation (CPFI), a major importer of great northern beans in the region, submitted the paper requirements for its participation in the Worldwide Reverse Trade Mission in September. A staff member from Corporate Travel, USDBC's official travel agency for this activity, was introduced to CPFI and will be working on their air tickets.

SINGAPORE

In this month, USBC SE Asia submitted the activity report for "Pulses 25," the Global Confederation's annual conference. This year's conference took place in Singapore during May 20 – 22.

THAILAND

In this month, USDBC SE Asia submitted the activity report for THAIFEX-Anuga Asia 2025. The trade leads have also been shared with the USDBC industry members. USDBC SE Asia met with Tim Real, Executive Vice President of S.K. Foods (Thailand). The company was established in 1977 as a sardine manufacturer for the local Thai market. Today, more than 99% of its products are exported worldwide. The main objective of the meeting was to discuss an ongoing project. The company is developing Mediterranean-flavored canned pulses-in-tuna products using various types of pulses. They plan to create different versions using each type of dry beans and are seeking samples for trials. Samples of U.S. dry beans as well as a technical manual on canning were provided to the company. The trial is scheduled for July and the company will update USDBC SE Asia of any updates.

VIETNAM

Agricultural Counselor Ralph Bean announced the upcoming visit of USDA Secretary Brooke Rollins in Hanoi during July 22 - 23. The U.S. Embassy plans to host a number of events with cooperators. USDBC SE Asia, along with other FAS cooperators and importers, will be joining the roundtable event. The event provides an opportunity for each cooperator to present key points related to their industry.

INDIA

E22MXWWI1: Educating the India Trade on U.S. Dry Beans USDBC SE Asia finalized the logistical requirements for participants from India to attend the USDBC Trade Mission to the USA Pulses Summit in Spokane, Washington during July 6 - 11, followed by farm visits to Chippewa Valley Bean and Bonanza Beans, as well as a seminar at the Minnesota Plant Protein Innovation Center during July 12 – 18.

PAKISTAN

E22MXWWI2: Developing the Supply Chain for U.S. Dry Beans in Pakistan USDBC SE Asia finalized the logistical requirements for participants from Pakistan to attend the USDBC Trade Mission to the USA Pulses Summit in Spokane, Washington during July 6 - 11, followed by farm visits to Chippewa Valley Bean and Bonanza Beans, and a seminar at the Minnesota Plant Protein Innovation Center during July 12 – 18.

AGRITOURISM: A PROMISING AVENUE FOR COLORADO'S DRY BEAN GROWERS

Colorado's agricultural landscape is as diverse as its terrain, with dry bean production playing a significant role in the state's economy. Dry beans, particularly pinto varieties, have been a staple crop in Colorado since the early 20th century, contributing to both local food systems and national markets. As farmers face challenges like fluctuating commodity prices, rising input costs, and climate variability, many are exploring innovative ways to sustain their operations. One such strategy is agritourism—a blend of agriculture and tourism that invites visitors to experience farm life firsthand. Let's examine the potential of agritourism for Colorado's dry bean growers, drawing on industry trends, benefits, and obstacles.

DRY BEAN PRODUCTION IN COLORADO

Dry beans are an integral part of Colorado's agricultural output, with the state ranking sixth in U.S. production, accounting for about 5% of the national total. In recent years, Colorado has produced around 774,000 hundredweight annually, valued at approximately $26 million. Key production areas include Weld County, which leads the state with over 21,000 acres, and the southwestern region spanning several counties. Pinto beans dominate, but other varieties like kidney and black beans are also grown, often in rotation with crops like corn or wheat to improve soil health and manage pests.

Despite its importance, dry bean farming is riskier and more costly than alternatives, due to specialized harvesting needs, higher disease control expenses, and sensitivity to timing. Yields can vary widely, from 300-500 pounds per acre under dryland conditions to 1,800-2,000 pounds with irrigation. With production forecasts showing fluctuations—such as a 12% national drop in 2023—growers are seeking diversification to stabilize income.

AGRITOURISM'S GROWTH IN COLORADO

Agritourism encompasses recreational, educational, and a leisure activity on farms, such as tours, workshops, and farm stays, or direct sales of produce. In Colorado, it

includes on-farm experiences, food-based events like cooking classes, and heritage activities that highlight rural history. The sector has seen robust growth: According to the 2017 USDA Ag Census, 1,056 Colorado farms participated in agritourism, generating nearly $64 million in income. Nationally, agritourism revenue more than tripled between 2002 and 2017, reaching nearly $950 million by 2017, though it represents a small fraction (5.6%) of overall farm income.

While often associated with orchards, vineyards, or livestock operations, agritourism holds untapped potential for crop-focused farms like those growing dry beans. Farms near urban areas or with direct-to-consumer marketing strategies are particularly well-positioned, as they can attract visitors seeking authentic agricultural experiences.

In Colorado, resources like workshops from the Department of Agriculture and Colorado State University Extension support farmers in developing these ventures.

POTENTIAL FOR DRY BEAN GROWERS

For Colorado's dry bean growers, agritourism offers a way to transform traditional farming into an experiential business. Unlike high-interaction crops like fruits, dry beans lend themselves to educational and culinary-focused activities. Visitors could tour fields during planting or harvest seasons, learning about crop rotations, sustainable practices, and the journey from seed to table. Farms might host bean-themed events, such as cooking demonstrations featuring local pinto or kidney beans, or sell value-added products like dried bean mixes or heirloom varieties.

Key benefits include:

- Income Diversification: Agritourism can supplement volatile commodity sales, with some farms reporting increased revenue from visitor fees, on-site sales, and events.
- Public Education and Marketing: It raises awareness about agriculture, potentially boosting demand for locally grown beans and fostering direct-to-consumer relationships.
- Community and Economic Impact: By creating jobs and attracting tourists to rural areas, it supports local economies and preserves farmland.
- Sustainability Enhancements: Organic dry bean producers, in particular, could highlight eco-friendly methods, aligning with growing consumer interest in sustainable food sources.

Examples from similar operations, such as Black Cat Farm in Boulder, which grows dried beans and offers farm-to-table experiences, illustrate how crop farms can integrate tourism. In the Northeast, dry bean farms have incorporated educational tours on harvesting and processing, drawing parallels for Colorado growers.

CHALLENGES AND DRAWBACKS

Despite its promise, agritourism isn't without hurdles, especially for dry bean operations. Beans lack the visual appeal or hands-on activities of pick-your-own fruits, potentially limiting visitor engagement. Remote farm locations in Colorado's southwest may struggle with accessibility, while urban-proximate growers face competition from more established attractions.

Common drawbacks include:

- Financial and Operational Risks: Initial setup costs for facilities, marketing, and insurance can be substantial, with no guaranteed returns.
- Liability Concerns: Inviting the public increases risks of accidents, requiring robust insurance and safety measures.
- Time and Labor Demands: Managing visitors diverts resources from core farming, potentially straining small operations.
- Regulatory and Community Issues: Zoning laws, health permits, and neighbor complaints about traffic could complicate

Ultimately, while the pros—such as economic diversification and community engagement—outweigh the cons for adaptable growers, success hinges on careful planning and leveraging Colorado's supportive agritourism framework. For dry bean farmers willing to innovate, it could "bean" the start of a resilient future.

AI

AI Technologies and Their Potential Uses in Colorado Dry Bean Production

AI's role in agriculture is expanding rapidly, with applications tailored to monitoring, prediction, and automation. In Colorado's dry bean fields, researchers and farmers are leveraging AI to address region-specific challenges like irrigation optimization and labor efficiency. Below are key technologies and their potential impacts.

PRECISION IRRIGATION AND WATER MANAGEMENT

Water scarcity is a pressing concern in Colorado where dry beans require efficient irrigation to maximize yields under varying conditions. AI algorithms, developed through collaborations like those at Colorado State University, analyze data from soil sensors, weather forecasts, and satellite imagery to create adaptive irrigation systems. For instance, AI can predict water needs based on crop growth stages, potentially reducing usage by optimizing schedules and minimizing waste. In the Grand Valley region, AI-driven systems are being tested for sustainable resource management, redesigning farming practices to enhance water conservation while maintaining bean quality.

DISEASE AND PEST DETECTION

Dry beans are susceptible to diseases like bacterial blight and fungal infections, which can devastate yields if not addressed promptly. AI-powered computer vision systems use deep learning to classify and detect issues in real-time. For example, machine learning models trained on images of bean leaves can identify diseases with high accuracy, enabling targeted fungicide applications. In Colorado, such technologies could integrate with drones for field scouting, reducing the need for manual inspections and cutting chemical use by up to 30-50% through precise interventions. Recent advancements include AI systems for common bean disease detection, leveraging object detection to provide cost-effective, rapid diagnostics.

SEED CLASSIFICATION AND BREEDING ENHANCEMENT

Quality seed selection is foundational to successful bean production. AI facilitates data mining and deep learning for classifying dry bean varieties based on traits like size, color, and genetic markers. Bean breeding programs, which focus on non-slow darkening pinto beans, could benefit from AI to accelerate variety development by analyzing genomic data and predicting performance under local conditions. Tools like those from UCI machine learning repositories have been used to classify beans with deep learning, improving seed purity and yield potential.

AUTOMATION AND LABOR OPTIMIZATION

Amid Colorado's agricultural labor crisis, AI-enabled robotics and precision tools are gaining traction. On the Western Slope, farmers are exploring AI-learned labor systems, including lasers and steam for weed control, which could automate tedious tasks in bean fields. Robotic harvesters and autonomous tractors, guided by AI, promise to increase productivity by 40-60% while reducing chemical usage. Additionally, AI can predict yields by integrating vegetation indices, weather, and soil data, aiding in harvest timing and market planning.

YIELD PREDICTION AND RESOURCE ALLOCATION

AI models excel at forecasting outcomes, helping Colorado growers optimize inputs. By processing vast datasets on soil moisture, temperature, and crop health, AI can predict bean yields and guide decisions on planting, fertilization, and pest management. This is particularly useful in variable climates, where tools like predictive analytics could minimize losses from droughts or frosts, enhancing overall farm efficiency.

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COLORADO DRY BEANS
Colorado Dry Bean Administrative Committee

WHIPPING PINTOS

The plant-based heavy cream market is experiencing significant growth, fueled by rising consumer interest in dairy-free options for reasons including health concerns, lactose intolerance, ethical considerations, and flexitarian lifestyles. Chef Jason Wrobel emphasizes the sector's rapid expansion, with major brands like Silk, Califia Farms, Country Crock, and Trader Joe's launching innovative products. These alternatives typically rely on plant-derived oils (such as coconut or sunflower) and proteins (from sources like fava beans, peas, or oats), enhanced with stabilizers and emulsifiers to replicate the rich, creamy texture and functionality of traditional dairy cream. Oat-based options stand out for their sustainability and neutral flavor profile, making them versatile for cooking and baking.

A particularly promising development is the emergence of pinto beans as a base for these alternatives. Research from institutions like the Fraunhofer Institute for Process Engineering and Packaging IVV (Germany) and the University of Campinas (Brazil) has explored using broken pinto beans—often considered agricultural waste—for plant-based milks, yogurts, puddings, and potentially heavy cream analogs. Broken beans, which make up about 4% of annual production in major growing regions, contain around 22% protein and 42% starch, providing an ideal ratio that could minimize the need for synthetic additives while delivering improved emulsification, texture, and nutritional value. This innovation addresses key challenges in the category, such as achieving whipability and richness without compromising on clean-label appeal, though off-flavors from beans remain a hurdle that fermentation or blending techniques might resolve.

Colorado bean growers stand to benefit substantially from this trend, given the state's strong position in pinto bean production. As demand for pinto-based dairy alternatives grows—projected within a broader plant-based beverage market expected to reach $52.58 billion globally by 2028 with a 13% CAGR—growers could see expanded markets beyond traditional uses like canned goods or direct consumption.

Economically, this could translate to higher revenues through upcycling broken or lower-grade beans into high-value ingredients for food manufacturers, reducing waste and increasing profitability. For instance, if processing facilities in Colorado adapt to supply pinto bean isolates or flours for dairy analogs, it could create local jobs in value-added agriculture and boost the industry's overall value, which has fluctuated but shows potential to rebound toward 2020 highs of $41.5 million. Environmentally, pinto beans align well with sustainable practices: they fix nitrogen in the soil, requiring fewer fertilizers and supporting crop rotation systems that enhance soil health. This eco-friendly profile could attract premium pricing from brands emphasizing sustainability, further benefiting growers amid rising consumer preference for low-impact foods.

Challenges persist, such as refining bean flavors to match dairy's neutrality and scaling production without additives, but ongoing research and market momentum suggest pinto beans could carve out a niche, positioning Colorado as a key supplier in the evolving plant-based landscape.

BREAKING RESISTANCE:

Syngenta's Plinazolin Technology Offers New Hope for U.S. Growers

Syngenta's Plinazolin technology, insecticide with a new mode of action (IRAC Group 30), targets resistant pests by binding to a unique site on the GABA receptor, offering effective control where existing insecticides fail. It provides broad-spectrum efficacy against pests like stinkbugs, mites, and caterpillars, reducing the need for frequent applications due to its sunlight stability and rain resistance, which also supports sustainability by lowering fuel use and soil compaction. Pending EPA approval in 2025, it will be available for crops like vegetables, tree fruits, nuts, and row crops, with applications including foliar, soil, and seed treatments. Plinazolin integrates well with integrated pest management (IPM), complementing biological controls and aiding resistance management by rotating modes of action. Syngenta plans global expansion, with initial U.S. registration expected soon.

Europe's Canned Beans Boom:

July 25, 2025

As busy lifestyles intersect with rising health awareness, canned beans are becoming a go-to staple. A recent openPR analysis projects strong growth for the Europe canned beans market through 2032, driven by demand for nutritious, convenient foods and plant-based diets.

Market Overview and Projections

The global canned beans market, heavily influenced by Europe, is expanding rapidly. Valued at USD 2,622.73 million in 2022, it rose to USD 2,764.27 million in 2023 and is forecasted to hit USD 4,326.55 million by 2031, with a CAGR of 5.8% from 2023-2031.

Europe leads canning innovations that improve quality, shelf life, and sustainability. These align with consumer shifts toward affordable proteins for vegan and health-focused diets. Urbanization and ready-to-eat preferences are key accelerators.

Market Segments

The market's versatility addresses diverse needs:

- Types: Navy, kidney, garbanzo (chickpeas), pinto, lima, black beans, and others—each offering nutritional perks like high fiber for versatile uses in salads and stews.
- Product Types: Organic (pesticide-free, popular with health enthusiasts) vs. Conventional (budget-friendly).
- Distribution: Online (e-commerce and websites for ease) and offline (supermarkets, retail stores).
- Applications: Households, restaurants, food manufacturing, and institutions like schools and hospitals, leveraging long shelf life.

Organic and online segments are growing fastest, reflecting adaptability.

See **Boom** on Page 16

Boom from Page 15

Drivers and Trends

Growth factors include:

- Convenience and Health: Urban consumers favor nutrient-rich, plant-based alternatives to meat, packed with protein and fiber.
- Affordability and Sustainability: Cheaper than fresh or animal proteins, with minimal waste; supported by government policies on healthy eating and eco-agriculture.
- Tech Advances: Better preservation and packaging, like BPA-free, recyclable cans.

Emerging trends: Flavor innovations (new seasonings), organic expansion, e-commerce rise, and detailed nutritional labels to highlight benefits.

Challenges and Opportunities

Hurdles persist: Competition from meats/fish, price fluctuations from weather/crops, views of canned foods as less fresh, supply disruptions, and regulatory compliance costs.

Opportunities include emerging markets in Asia-Pacific, Latin America, and Middle East & Africa, where rising incomes and dietary changes boost demand. Innovations like ready meals or dips, retailer partnerships, digital marketing, and sustainable sourcing can drive expansion.

Regional Insights

Europe and North America dominate, emphasizing sustainability, ethical sourcing, and convenience/plant-based trends. Asia-Pacific shows highest potential via urbanization in India/China and shelf-stable protein shifts. Latin America relies on traditional bean recipes, while Middle East & Africa grow with economic progress.

Outlook

Canned beans promote food security and nutrition, backed by policies. With ongoing innovations, Europe's market will thrive amid health and tech trends.

THANK YOU ROBERT,

Robert Schork and Colorado Dry Bean Board have supported my culinary marketing activities encouraging chefs to use dry beans in center plate entrees. Part of that effort was to bring beans into culinary competitions. I wrote the rules for the American Culinary Federations vegetarian competitions and mandated dry beans be used in the entrée or at least on the menu. Now the ACF mandates that dry beans be used in their hot foods competition. They don't have a lot of competitors and in the vegetarian category and one of the reasons I am, at age 76 competing. The competition is North American Regional elimination competition meaning all countries in Canada, US, North, Mexico, Central, and South America will be represented in the competition. Winner goes to Wales to compete for the World Cup in Vegetarian Cuisine.

Any support is sincerely appreciated,

Thank you,
Ron
Ron Pickarski ron@eco-cuisine.com

Producers CO-OP
Olathe, Colorado 81425

Certified Premium
Western Colorado
Pinto Bean Seed

Colorado Seed Grower's Association Class #1 Seed Conditioner

Available Varieties
Bill Z
DR Wood
Windbreaker
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