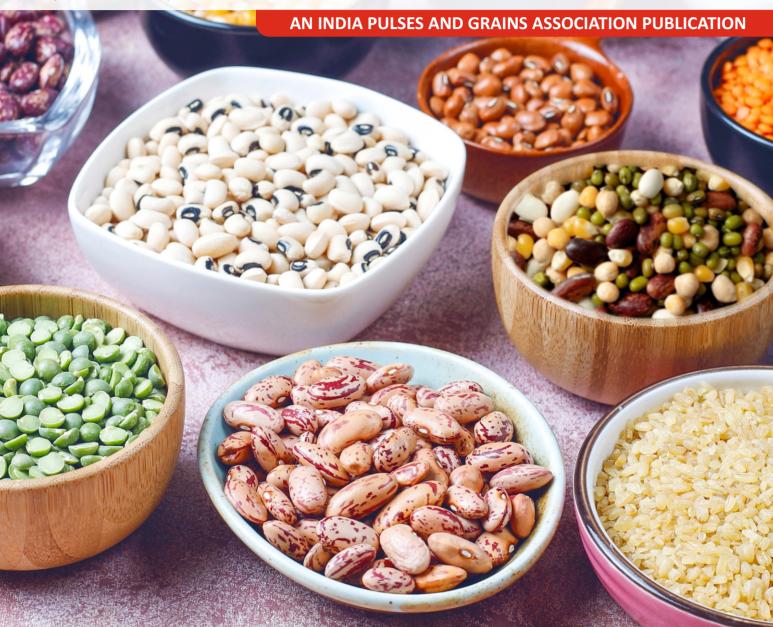


PULSEINDIA



- Aatmanirbharta in Pulses: The Government of India's Mission for Self-Reliance
- The Pulse of India: Harnessing Cooperative Power for Global Dominance
- Rabi Pulses production Outlook for 2025









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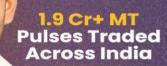
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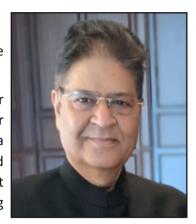


Chairman's Message

Dear Friends.

Warm greetings from the India Pulses and Grains Association (IPGA). I hope this message finds you in good health and high spirits.

The Pulses Conclave 2025, held this past February, was a landmark event for both the Indian and global pulses community. With participation from over 800 delegates representing more than 20 countries, the conclave served as a dynamic platform for knowledge exchange, policy dialogue, and international collaboration. The insightful discussions at the event underscored the crucial role of pulses in enhancing food security, increasing farmers' incomes, and promoting sustainable agricultural practices.



India is at a pivotal stage in its agricultural growth. The Government of India's emphasis on achieving self-sufficiency in pulse production is both commendable and timely. The recent allocation of ₹1,000 crore for the pulses sector in the Union Budget 2025–26 is a forward-looking initiative aimed at boosting production, enhancing infrastructure, and driving innovation across the entire value chain. Furthermore, the increase in Minimum Support Prices (MSP) for key pulse crops reflects the government's clear intent to prioritise pulses within national agricultural policy and empower all stakeholders involved.

Currently, India's annual demand for pulses stands at approximately 32 million tonnes, while domestic production is around 25–26 million tonnes. In FY 2024–25. India imported a record 7.3 million tonnes of pulses in FY 2024-25. With demand projected to rise to 40 million tonnes by 2030, it is essential to adopt a proactive and strategic policy approach. IPGA has consistently advocated for an import policy that ensures the landed cost of imported pulses remains above the MSP set by the Government of India. A flexible and responsive duty structure—aligned with MSP—will protect Indian farmers' interests and encourage them to increase production. Such measures will also enhance overall market confidence and stability across the pulse's ecosystem.

This approach aligns with our Hon'ble Prime Minister's vision of achieving Aatmanirbharta (self-reliance) in pulses by addressing the demand-supply gap through a robust and farmer-centric policy framework.

IPGA reaffirms its unwavering commitment to working in close partnership with all stakeholders—the Government of India, relevant ministries, global partners, industry leaders, and our farming community—to strengthen the pulses sector. Our joint efforts are vital to ensuring India's food and nutritional security and achieving sustainable self-reliance in pulse production. Together, we can bring about meaningful and lasting transformation across the pulses value chain.

Best Regards,

BIMAL KOTHARI Chairman



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Aatmanirbharta in Pulses: The Government of India's Mission for Self-Reliance

Kriti Khurana & Siraj Hussain

Pulses, a major source of dietary protein is wrongly considered as a "poor man's meat" in India especially for low-income vegetarian households. Even for nonvegetarian households the consumption of animal products is relatively low due to high price. In India an average Indian in urban and rural area spent only 1.40 percent and 2.04 percent of his monthly per capita expenditure on pulses and pulse products in 2023-24. This is lower than 2011-12, when an average Indian in urban and rural area spent 2 percent and 2.9 percent of his monthly per capita expenditure respectively on pulses and pulse products. This indicates that Indian households may be spending less on proteins. The per capita expenditure on beverages and processed food in India increased significantly from 2011-12 to 2023-24. In rural areas, the share of expenditure on these items rose from 7.9% to 9.84%, while in urban areas, it increased from 8.98% to 11.09%.

Ensuring steady and sufficient of pulse is a priority as it is a major source of protein for the low income especially the vegetarian households.

For decades, India has struggled to meet its pulses demand, often relying on imports to fill the gap. In recent years, the Government of India has intensified efforts to achieve Aatmanirbharta (self-reliance) in pulses production. This mission is not only about reducing import dependency but also about securing nutritional self-sufficiency, stabilizing farm incomes, and ensuring long-term food security. It also helps in improving the quality of soil.

Self-Reliance Imperative in Pulses

Aatmanirbharta in pulses emerged strongly during the COVID-19 pandemic, when global supply chains were disrupted. India's vulnerability due to import dependence became more evident, and the government

resolved to reduce external reliance, especially for essential commodities.

To incentivise the farmers to increase pulses production, the Union Government has been increasing the minimum support price (MSP) of pulses over the years.

During the UPA regime (2003-04 to 2013-14), the MSPs of major pulses including tur, moong, and urad were increased gradually.

The MSP of tur was Rs 1,360 per quintal in 2003–04 which increased to Rs 4,300 by 2013–14—an increase of 216% over ten years. In comparison, under the NDA Government, the MSP of tur increased from Rs 4,350 per quintal in 2014–15 to Rs 7,550 for the 2024–25 season, marking an increase of over 73% in ten years.

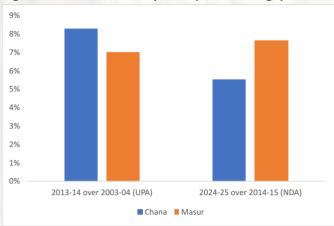
Similarly, moong's MSP increased from Rs 1,370 in 2003–04 to Rs 4,300 in 2013–14 under the UPA—a rise of 214%. Under the NDA Government, it has been increased from Rs 4,600 in 2014–15 to Rs 8,768 in 2024–25—an increase of nearly 91%,

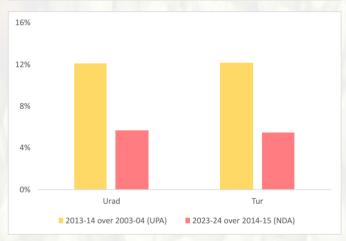
During the UPA period, the average compounded annual growth rate (CAGR) of MSP of tur was 12.2 percent. For moong and urad it was 12.12 percent. For the Rabi crops of pulses, the CAGR of MSP of Chana and Lentils was 8.27 percent and 7 percent.

"During the subsequent 10 years of the NDA government starting from 2014-15, the MSP has grown at a comparatively modest rate. The average annual growth rate of moong, urad and tur was 6.5 percent, 5.4 percent and 5.6 percent, respectively while that of chana and lentils was 5.5 percent and 7.6 percent (figure 1)".

IPGA

Figure 1: CAGR of MSP on pulses (In Percentage)





Source: Commission for Agricultural Costs and Prices, Ministry of Agriculture & Farmers Welfare, Government of India

It is clear that in the UPA period the CAGR of MSP of pulses was higher than in the subsequent ten year period of NDA but the engagement of Government in ensuring the MSP to farmers was not as deep as in the NDA period. As a result, the prices remained below MSP and the farmers often sold their produce below MSP. The NDA Government under Mr Modi has substantially scaled up procurement of pulses at MSP.

In its first year itself the NDA Government under Mr Modi set up a Price Stablisation Fund (PSF) in the Department of Agriculture, Cooperation and Farmers Welfare (the second author was Union Secretary, Ministry of Agriculture at that time) as a Central Sector Scheme and a corpus of Rs.500 crore was provided. The idea was to help in regulating price volatility of agricultural and

horticultural commodities in the open market. For achieving this objective, it was decided that if the Government felt that the market prices could further rise, a commodity could be purchased from the open market even at prices higher than the MSP. It also enabled purchase of a non-MSP commodity also.

Onion was the first commodity procured by a Government Agency through Small Farmers Agri-Business Consortium (SFAC) and Nafed. The procured stock was released in the market through Mother Dairy booths when the prices rose higher.

Since the main objective of the scheme was to keep food inflation under check, it was decided to transfer the scheme from DA&FW to Department of Consumer Affairs. This decision became effective on April 1, 2016.

The NDA Government also continued the Prices Support Scheme of DAC&FW under which a State Government sought the approval of Union Government to procure pulses or oilseeds at MSP. But the quantity of procurement was capped at 25 percent of production in a state.

In her budget speech of 2025-26, the Finance Minister announced that farmers have responded to Government's resolve to achieve self-sufficiency in pulses by increasing the cultivated area by 50 per cent. She also announced launch a 6-year "Mission for Aatmanirbharta in Pulses" with focus on Tur, Urad and Masoor. It was promised that NAFED and NCCF will be ready to procure these 3 pulses, as much as offered during the next 4 years to 2028-29. The farmers will have to enter into an agreement with procuring agency. It means that the earlier cap on 25 percent of production has been removed.

If this decision is actually implemented on the ground, the farmers would be able to receive MSP for pulses which will be a big incentive. This will be a big difference from the experience of farmers in the last ten years as they did not receive MSP for Chana and Tur for several years (figure 2).

IPGA

Figure 2: Wholesale prices of Chana and Tur and its MSP



Source: Agmarknet (accessed on 9 June 2025) and Commission for Agricultural Costs and Prices, Ministry of Agriculture & Farmers Welfare, Government of India

Through the National Food Security Mission (NFSM)—Pulses and the Targeted Rice Fallow Area (TRFA) programme, the Government hopes to promote pulses cultivation into traditionally non-pulse growing and rainfed regions, enhancing both area and productivity.

An important component of self-sufficiency in pulses has to come from higher yielding seeds. The rollout of improved varieties through ICAR and Indian Institute of Pulses Research (IIPR), increased availability of certified seeds, training in best practices, and better access to institutional finance can complement the MSP regime. Procurement of pulses through Farmer Producer Organizations (FPOs) has been initiated though it has not really expanded sufficiently to account for a large percentage of production. FPOs still face a number of challenges on the ground due to which they have not been able to reach their full potential.

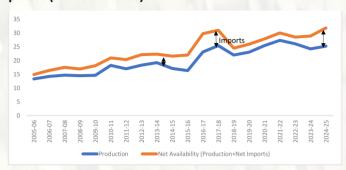
Trends in Pulses Production

In the NDA period, India's pulses production has seen remarkable growth over the past decade. The production of pulses increased from 19.2 mt in 2013-14 to 27.3 mt in 2021-22, driven by expanded acreage, favourable prices, and policy incentives (figure 3). But the momentum could not be sustained due to lower prices in the open market and sustained imports at low tariff. As a result, in 2024-25 pulses production came down to 25.2 mt.

As a result, India's dependence on pulses continues. On an average during 2019-20 to 2023-24, India has

imported 3 mt of pulses every year. In 2024-25, around 6.5 mt of pulses were imported in India.

Figure 3: Domestic Production and Net Availability of pulses (million tonnes)

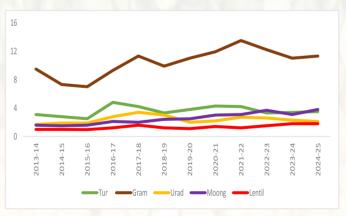


Source: Ministry of Agriculture, Ministry of Commerce and Industry

Note: Pulses import for 2024-25 is for the calendar year 2024

In 2024-25 (3rd Advance Estimates), India produced 25.2 mt of pulses. Of this, about 45 percent or 11.3 mt is gram (chickpeas) and about 15 percent or 3.8 mt is moong. Tur production was 13.8 percent or 3.5 mt (figure 4).

Figure 4: Domestic production of various pulses (million tonnes)

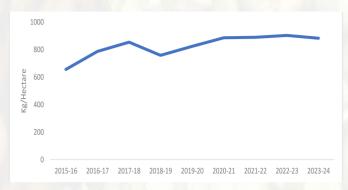


Source: Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India Note: Data for 2024-25 is as per Third Advance Estimates

Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, and Karnataka remain the top producing states for pulses. The average yield of pulses, which stood at around 655 kg per hectare in 2015-16, has steadily risen to 881 kg per hectare by 2023-24 (figure 5).



Figure 5: Yield of pulses in India (Kg/Hectare).



Source: Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India

This growth can be attributed to the promotion of high-yielding and disease-resistant pulse varieties, expansion of irrigation facilities, adoption of better agronomic practices, and focused government schemes such as the National Food Security Mission (NFSM) for pulses. Research institutions like the Indian Institute of Pulses Research (IIPR) and state agricultural universities need more resources for research on pulses so that the yield can go up and shorter duration varieties can be developed.

Import duties reduced and agreements signed for import

India's trade policy on pulses has undergone significant transformation over the last decade, with import duties and bilateral agreements playing a central role in balancing the goals of domestic self-reliance and price stability. Recognizing the volatility in domestic pulses production caused by monsoonal fluctuations, pest outbreaks, and structural yield constraints, the Government of India has used the reduction of import duties stabilize retail prices and ensure sufficient availability in the domestic market.

In 2021 and 2022, when domestic production of tur (pigeon pea) and urad (black gram) fell short of targets, the government responded by reducing the basic customs duty on these pulses to zero and also exempted them from the Agriculture Infrastructure and Development Cess (AIDC), which was introduced in the Union Budget of 2021.

To augment domestic supplies , the Government signed two bilateral agreements with Malawi and Myanmar in June 2021 respectively for duty free import of 1 mt of tur and 2.5 mt urad every year from 2021-22 to 2025-26. It also extended its existing MoU with Mozambique for tur.

In December 2023, the Government extended the duty-free imports of Urad and Tur till March 31, 2025. Again, on 20 January 2025, the Government extended the window for free imports of tur till March 31, 2026 to boost supplies as the domestic production is not on expected lines despite good monsoon.

The pulse growers feel the heat due to cheap imports and sudden changes in tariff structure. The duty-free import for yellow peas was initially introduced in December 2023 but it has been extended multiple times since then. Import duty on tur has also been waived till March 31, 2026. The Government has extended the duty-free import of yellow peas until March 31, 2026. Cheap yellow pulses contribute to lower prices of tur and gram due to which farmers lose the incentive to grow these crops and contribute to self-sufficienty.

In Budget 2025, the government announced that 100 percent of the state's production of tur, urad and lentils will be procured through Central Nodal Agencies for the next four years till 2028-29 to achieve self-sufficiency in pulses.

Conclusion

For achieving Atmanirbharta, the Government must ensure that landed price imported pulses should not be lower than the MSP. If the Government succeeds in enhancing procurement in 2025-26, the farmers may be incentivised to continue growing pulses. In addition, more funding for research in developing suitable varieties giving higher yield is need of the hour.

Khurana is a PhD student at BITS Pilani Hyderabad campus. Hussain is a former Union Agriculture Secretary. He is also associated with Infravision Foundation.



The Pulse of India: Harnessing Cooperative Power for Global Dominance

Mr. Unupom Kausik

The National Co-operative Exports Limited (NCEL)

India's pulses are not just a crop; they are a lifeline for millions of farmers and a beacon of hope for a hungry world. As India unlocks the full potential of its pulses sector, it is sowing the seeds of a brighter, more nourished future for all

The Pulses Landscape in India

India's pulses sector has witnessed remarkable growth in recent years. Pulses production has soared from 163.23 lakh tonnes in 2015-16 to a record 244.93 lakh tonnes in 2023-24, driven by the expansion of cultivated area, favourable monsoons, and supportive government policies. This impressive growth has been spread across various pulse varieties, including chickpeas (gram), pigeon peas (tur), lentils (masoor), black gram (urad), and mung beans.

However, the pulses sector in India is characterized by regional disparities, with states like Madhya Pradesh, Rajasthan, Maharashtra, and Uttar Pradesh accounting for a significant share of the production. On the consumption front, pulses form an integral part of the Indian diet, with per capita consumption varying across states and between rural and urban areas.

Despite the production growth, India has been a net importer of pulses, with imports reaching 47.38 lakh tonnes in 2023-24. This import dependency is primarily due to the demand-supply gap for specific varieties and the need to maintain price stability. However, India's pulses exports have shown promising growth, reaching a record 729,000 metric tonnes in calendar year 2024, indicating the sector's immense untapped potential.

Policy Impetus and Enabling Environment

The Indian government has accorded high priority to the pulses sector, implementing a comprehensive policy framework to boost domestic production, ensure price stability, and promote exports. Some of the key policy measures include:

- Imposition of import duties on lentils and chickpeas to safeguard the interests of domestic farmers
- 2. Launch of the "Aatmanirbharta in Pulses Mission" with a budgetary allocation of ₹1,000 crore to enhance self-sufficiency
- Increase in Minimum Support Prices (MSPs) for key pulses varieties to ensure remunerative prices for farmers
- 4. Promotion of best agronomic practices and technological interventions under the National Food Security Mission-Pulses

These policy initiatives have not only helped bridge the production-consumption gap but also created a conducive environment for export growth. The government's focus on self-sufficiency, price stability, and farmer welfare has laid the foundation for India's emergence as a competitive player in the global pulses market.

NCEL: The Cooperative Advantage in Pulses Exports

The National Co-operative Exports Limited (NCEL), an initiative of the Ministry of Cooperation and leading cooperative organizations of the country, is poised to play a game-changing role in catalysing India's pulses exports. NCEL's unique cooperative model and extensive farmer network give it a distinct advantage in the export market:

 Farmer-Centric Approach: NCEL's direct linkages with pulses farmers through the vast cooperative infrastructure ensure a reliable, traceable, and sustainable supply chain. By eliminating intermediaries and ensuring fair prices, NCEL can incentivize farmers to produce export-quality



pulses and align production with global demand.

- 2. Quality Assurance and Certification: With its expertise in meeting stringent international quality standards and obtaining necessary certifications, NCEL can help Indian pulses compete effectively in discerning global markets. By implementing robust quality control measures and providing technical assistance to farmers, NCEL can ensure consistent supply of high-quality pulses for exports.
- 3. Institutional Strength and Policy Support: The cooperative sector provides NCEL with the financial stability, institutional framework, and policy advocacy needed to navigate complex export markets. This institutional strength enables NCEL to undertake long-term export promotion strategies and withstand market volatility.
- 4. Global Market Intelligence and Networking:
 NCEL's established networks in key export
 destinations through its partnerships gives it a
 strategic advantage in understanding market
 dynamics, identifying emerging opportunities, and
 building strong customer relationships. This global
 network allows NCEL to provide real-time market
 intelligence to farmers and align production with
 evolving consumer preferences.

By leveraging these core strengths, NCEL can emerge as the flagbearer of India's pulses exports, driving the sector's growth and competitiveness. NCEL's cooperative model not only ensures better returns for farmers but also enables the creation of a more efficient, transparent, and responsive export supply chain. The active participation of NCEL in pulses exports can help India capture a larger share of the global market, diversify its export basket, and establish itself as a reliable supplier of quality pulses.

Harnessing Export Opportunities

The global pulses market is witnessing robust growth, with demand projected to reach USD \$135.2 billion by 2034, growing at a CAGR of 5.7%. This growth is driven by factors such as rising population, changing dietary

preferences, increasing health consciousness, and the growing popularity of plant-based proteins. India, with its diverse agro-climatic conditions, large production base, and competitive advantages, is well-positioned to capitalize on this burgeoning export opportunity.

Some of the key export markets and segments that India can target include:

- Bangladesh, China, UAE, and Myanmar: These countries represent the immediate focus markets for Indian pulses exports, given their geographical proximity, cultural affinity, and existing trade relations.
- European Union, Africa, and North America:
 These regions offer immense potential for medium-term growth, driven by the rising demand for healthy, sustainable, and ethically sourced food products.
- Value-Added Products: The increasing preference for convenience foods and ready-to-eat products presents a significant opportunity for exporting value-added pulses, such as pulse flours, snacks, and protein isolates.
- 4. Organic and Specialty Varieties: The growing global appetite for organic and specialty pulses, driven by health and environmental consciousness, offers a lucrative niche for Indian exporters.

NCEL, with its cooperative network, quality focus, and market intelligence, is well-equipped to spearhead India's pulses export drive in these high-potential markets. By leveraging its farmer connect, institutional strength, and global partnerships, NCEL can help Indian pulses gain a competitive edge and establish a strong brand identity in the international market.

Conclusion

India's pulses sector is at a transformative juncture, with the potential to transition from import dependency to export leadership. The convergence of supportive policies, robust production growth, and expanding global demand presents a historic opportunity for India to



emerge as a major player in the global pulses market. The National Co-operative Exports Limited (NCEL), with its unique cooperative model and extensive farmer network, can play a catalytic role in driving India's pulses exports.

By harnessing the power of cooperatives, ensuring quality and traceability, and leveraging institutional strength and global partnerships, NCEL can help Indian pulses compete effectively in the international market. The active participation of NCEL in pulses exports can bring multifaceted benefits - better returns for farmers, increased foreign exchange earnings, diversification of the export basket, and the establishment of India as a reliable supplier of quality pulses.

The time is ripe for India to unleash its pulses export potential, and NCEL is well-positioned to lead this charge. With the right strategies, institutional support, and collaborative efforts, India can not only enhance its global competitiveness in pulses but also contribute significantly to global food security and nutrition. The NCEL advantage in pulses exports is a win-win proposition for farmers, consumers, and the nation at large.

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Rabi Pulses production Outlook for 2025

Mr. Nirav Desai Managing Partner

GG PATEL & NIKHIL RESEARCH COMPANY



RABI PULSES CROP 2025

RABI PULSES CROP-WISE AREA COVERAGE ('Lac Hac)

S. No	Pulses Crops	Area C	overed	Change
		2024-25	2023-24	
1	Chana	99.41	95.87	3.54
2	Lentils	17.38	17.43	-0.05
3	Others	25.64	24.09	1.55
	Total	142.43	137.39	5.04

Source: Department of Agriculture

- 1. Area covered under Rabi pulses crop 2024-25 had increase by 5 Lac Hac over last year.
- 2. The area under Chana crop has increased by 3.54 Lac Hac, whereas the area for len ls remains unchanged.

WEATHER ANALYSIS

- 1. The 2024 monsoon season concluded near normal, with seasonal rainfall (June–September) at around 96% of the Long Period Average (LPA).
- 2. Monsoon withdrawal began in early October from key pulse-growing regions.
- October to mid-November witnessed predominantly dry weather with temperatures slightly above normal in most areas.
- A spell of winter rains occurred between late December in regions including Madhya Pradesh, east Rajasthan, West Uttar Pradesh and Andhra Pradesh, Telangana, and Karnataka.
- Dense fog and cold weather persisted from late December through mid-January, particularly over northern and some part of M.P and Rajasthan. However, there were fewer days of extreme weather conditions.

- 6. From late January, conditions gradually improved, with fog confined to early mornings and temperatures returning to normal ranges.
- 7. Overall, fewer extreme weather events were observed compared to average years, though the season showed a slight warm bias, with cold spells being shorter but more intense in northern regions.

TEMPERATURE ANALYSIS



- Temperatures throughout the season were slightly above average.
- This winter season was relatively mild, so yields are generally expected to be normal.

CHANA

S.No	States	Area co	vered	Change	Expected Yield	Production Prospects
		2024-25	2023-24			
1	AP & Telangana	4.1	4.0	0.1	Same	Same
2	Karnataka	8.2	6.4	1.8	Slightly higher	higher
3	Madhya Pradesh	20.1	21.1	-1.0	Same	Lower
4	Maharashtra	28.0	26.9	1.1	Same	Higher
5	Gujarat	7.9	6.4	1.5	Same	Higher
6	Rajasthan	20.3	17.8	2.5	Lower	Same
7	Others	10.9	13.4	-2.5	Slightly Lower	Lower
	All India	99.41	95.87	3.5	Slightly Lower	Same



- 1. Chana acreage has increased by 3.5 lakh hectares, reaching 99.41 lakh hectares.
- Major area increases were reported in Gujarat, Karnataka, Maharashtra and Rajasthan while only Madhya Pradesh state saw slight declines in acreage.
- 3 As in the previous season, a significant improvement in chana prices encouraged farmers to expand the area under cultivation.
- 4. The Minimum Support Price (MSP) for chana was increased by ₹210, bringing it to ₹5,650 per quintal.
- 5. Despite average weather conditions across Maharashtra, Gujarat, and Karnataka during the crop cycle, the yields could not surpass previous levels.
- This year government Chana stocks remain tight due to sluggish MSP procurement, as market prices have mostly stayed at or above MSP levels, limiting farmer participation.
- 7. Overall, despite a higher sown area, the Chana crop could not translate into higher output this season.

- 1. lentil acreage in India has remained largely unchanged compared to last year.
- In Madhya Pradesh, lentil production is expected to be lower due to a decline in both yield and acreage, whereas Uttar Pradesh is projected to see higher production, supported by increased yield and acreage.
- 3. The government has increased the MSP for lentils by ₹275, bringing it to ₹6,700 per quintal.
- 4. Overall, Pan-India yield prospects are estimated to be slightly higher as compared to last year.
- 5. Consequently, all-India lentil production is expected to be slightly higher from last year.

CONCLUSION

- 1. Rabi pulses area increased by 5 lakh ha, mainly driven by higher chana acreage.
- 2. Overall, Rabi 2025 pulse production outlook is steady compared to last year.

<u>CROP PROSPECTS:</u> - CHANA- SAME <u>LENTILS</u> - Slightly Higher

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LENTILS

Н	S. No	States	Area C	overed	Change	Expected Yield	Production
1			2024-25	2023-24			Prospects
	1	Madhya Pradesh	6.80	7.15	-0.35	slightly down	Slightly down
	2	Uttar Pradesh	6.04	5.77	0.27	Higher	Higher
	3	Others	4.54	4.51	0.03	same	Slightly Higher
		All India	17.38	17.43	-0.05	Slightly Higher	Slightly Higher



'Strategies for boosting the Pulses production in India'

Mr. Sumit Gupta

CEO, Asia Busines
Waseda Global Commodities Pvt Ltd

India holds a pivotal position in terms of Pulses markets globally – as the world's largest producer (25% of global production), consumer (27% of global consumption) and importer of pulses (15-25% of global trade and imports). India is the mover and shaker of Global Pulses market and even slight market changes in Indian market conditions, impact the global trade flows significantly.

PULSES SUPPLY DEMAND CYCLICITY

Pulses Bull Run of 2015-17 / 2022-24 (El-Nino Years) - But This time it is different:

"When the same or closely similar circumstances occur again, sometimes in only a few years, they are hailed by a new, often youthful, and always supremely self-confident generation as a brilliantly innovative discovery in the Commodity trading world. Everyone thinks of themselves as a genius.

There can be few fields of human endeavor in which history counts for so little as in the world of trading.

Past experience, to the extent that it is part of memory at all, is dismissed as the primitive refuge of those who do not have the insight to appreciate the incredible wonders of the present.

(Adapted, changed as per context- Original from Market Cycles- Howard Marks)

Historically, Indian production of pulses has witness significant volatility in years of rainfall deficit - especially in Central and Western India. These supply shortages lead to a rally in domestic prices, so India needs to look at imports to ensure adequate supplies and control inflation.

Rally in domestic process usually bring in attention from government and regulators. In Past, instead of focusing on systemic improvements in the supply chains as a whole, right from cultivation to availability of pulses to end-consumers, to streamline supply shocks. Policy interventions in Pulses are focused on imports, stock

limits, levies and NTB etc. and are essentially knee-jerk reactions to tame domestic prices.

In developing country- where inflation is MSP induced and benign in normal cases, Benchmark for success of policy intervention should not be prices of Tur or Channa dal alone - but a proper and in-depth understanding of the protein consumption per capita in the marginal and economically weaker sections of society.

We need concentrated efforts to reduce production elasticity with Monsson, Volaitlity in prices, Increase in Farmer margin, better processing and supply chain mechanisms.

To address the question of production of pulses in India, we need to comprehensively challenge the following aspects:

- Why India pulses yield is s still low?
- Why farmers are not able to realize the price of their product?
- How we can farmers be benefitted through carbon credits for not using fertilizers
- How better information channels be created for our farmers?
- How can we optimize the MSP among various crops

Suggestions for Supply Side Interventions required from Govt:

- Pulses cultivation contributes soil health through nitrogen fixation, thereby becoming integral to sustainable agricultural practices
- Incentivize Indian farmers to plant and harvest more pulses
- Better Seed varieties Drought resistant varieties, especially for kharif crops and Heat-resistant varieties in case of Rabi crops like Chickpeas
- Reducing crop duration for Pigeon Peas crop



- Encourage grading of outputs, so farmers realise better prices for better grades / varieties
- Long term policy outlook in case of imports as a means of ensuring farmers in origins can also take informed decisions on their planting preferences.

Supply chain Interventions:

Data Interventions required to curb volatility:

- Beter Supply Side Forecasting
- Better Weather- Crop Interaction Mechanism closer monitoring to pre-empt weather events that can impact production and taking remedial actions
- Non-Politicized information on global supply scenarios
- Continuous dialogue with all major global pulses producing countries

Stock Interventions:

- Policy on Buffer Norms in Pulses
- Adherence to stock positions to curb volatility due to artificial shortages
- Clear long-term policy on govt. supplies, like for cereals, to ensure protein availability to the population.
- Improving supply chains by incentivizing more efficient movement and storage of Pulses to reduce post-harvest wastages.

The Road Ahead:

Protein demand can be considered proxy to economic growth, as incomes increase, households divert their food budget to more protein sources. Compared to global standards, protein consumption in India is significantly quite lower—(Source: FAO)

Pulses are instrumental for nutritional security as a sustainable source of dietary protein, particularly for vegetarians. There has also been growing demand for plant-based protein sources, as consumption patterns evolve for environmental, cultural and humanitarian reasons.

India still has significant prevalence of anaemia, stunting, wasting due to nutrition deficit.

Therefore, the measures for success of Policy interventions should not be only driven by prices and market volatility, rather, ought to be aimed at addressing core issues which goes beyond the price escalation and market stocks.

Our Economic dream of Viksit Bharat is not possible – without focus on self-sufficiency in pulses production and long-term policy and direction on imports for health and nutrition driven supply chains in Bharat.

For 2047 our ambition should be:

Food Security to Nutritional Security...

The Target of Viksit Bharat is incomplete without giving our population potential to express themselves in choices of food and nutrition availability and opportunities to participate in that growth.

Let us have ambitious target:

We should focus on Doubling pulses production in India and simultaneously we need to focus on how we can double the consumption of pulses by ensuring access of nutritious food to our population.



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Government Incentives and Opportunities in the Pulses Processing sector

Mr. Dhruv Sharma - Sector Lead
Agriculture at Invest India

Pulses are a vital part of Indian diets, especially for vegetarian households, acting as a major source of protein. However, the sector has faced several long-standing issues such as underproduction, market volatility, and limited support infrastructure. In recent years, the government has taken notable steps to strengthen both the production and processing units of the pulses ecosystem.

In FY 2024, India produced 244.93 lakh tonnes of pulses and exported 626,653.80 metric tonnes. The major regions of pulse cultivation are Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Karnataka, West Bengal delta region, Tamil Nadu, Kerala and some parts of Maharashtra. India primarily imports from Canada, the USA and Australia, and exports to Bangladesh, China and the UAE.

With the growing demand for vegan and plant-based protein alternatives, the growth of the pulse production and processing industries presents lucrative opportunities. Under the goal of Aatmanirbharta, Rs. 1,000 crore has been allocated in the Union Budget of 2025-26 to pulse production.

Additionally, to encourage production, the government has offered various incentives for farmers and primary producers.

Firstly, the National Food Security Mission (NFSM) is a central scheme launched in 2007 that focuses on the growth of various components of crop growth.

 In regard to pulse growth, the scheme allocates 15% of the funds to seed distribution, 15% to integrated pest management, 15% on farm machinery and the remaining on other crop growth activities.

- Besides the attractive market opportunities, cultivation of pulses comes with the added benefit of increasing soil fertility and enriching the nitrogen content in the soil. Therefore, to incentivise farmers to cultivate pulses, a subsidy of Rs. 25 per kg or 50% of the cost on varieties of pulse seeds, including special breeder seeds, is offered.
- As a part of the NFSM XII plan, the government has allocated specified funds to each sect of development for pulse growth in 24 states. These sects of focus include Integrated Nutrient Manangement, Resource Conservation Tools, Cropping System based training, etc.

Additionally, to bridge the demand-supply disparity, farmers producing pulses receive a better Minimum Support Price (MSP). This has led to a rise in the market price of pulses and offer better opportunities to the producers. Other price stabilisation policies include Pradhan Mantri Annadata Aay Sanrakshan Yojna (PM-AASHA), entailing Price Support System (PSS), Price Deficiency Payment Scheme (PDPS) and Private Procurement & Stockist Scheme (PDPS), and a special Price Stabilisation Fund for chickpeas and Mungbean stocks..

Incentives for processing

The fundamental processing of pulses starts with



milling. In the process, the outer layer of the pulses, the husk, is separated from the pulse grain. Commercial milling involves processing large quantities at once. Traditionally, this is a long process. To remedy this, research and development is being funded to offer relief in the process.

- The Central Food Technological Research Institute, an Indian food research institute and laboratory, has overcome the problem of humidity in the dehusking process and also consumes less time. Displaying a yield rate of 80%, the technology has set a benchmark for several designs of small-scale usage.
- The Indian Agricultural Research Institute (IARI) has eliminated the use of edible oil in the milling process. By employing a roller mill for scratching, the smooth grains are easy to split in ambient water temperatures.

By solving primary issues in the processing industry, the government is able to open better opportunities for private food processing companies and introduce different horizons in the market.

Potential Opportunities

In a booming industry, it is crucial to utilise the limited resources in tapping the right market opportunities. Globally, the pulses market is experiencing a growing trend in canned chickpeas and beans, pulse flours, and snack consumption. However, all of these high nutrient foods require high-quality pulses. This can be maintained through a standardised chain of grain processing. Mitigating losses like post-harvest losses, pesticide attacks and faulty packaging throughout the industry will boost production growth.

India's regional and geographical diversity often

poses a challenge for standardisation. However, through proper R&D and cultivating what is good for the soil, producers can localise the harvest. Apart from catering to a larger market, the yield will also be healthier by being indigenous to the region. For instance, chickpeas will grow best in central and southern India, while lentils and kidney beans will have better yields in Northern India.

India stands at par with the global market in terms of production and consumption. To compete in the export market, it is crucial to continue effectively catering to both the Indian audience and the newly emerging global market. To unify the dichotomy in the consumption patterns, rigorous awareness campaigns about practical health benefits and eating habits can influence consumer behaviour.

These measures will allow India to rise as a top exporter of pulses. The compound annual growth rate for global pulse trade was 7.2%, where the Indian CAGR for chickpeas was 7.6%. The market exhibits booming opportunities, driven by increasing health awareness, new consumption patterns, and the health benefits of the grain. With the right strategy, India can emerge as a top player.



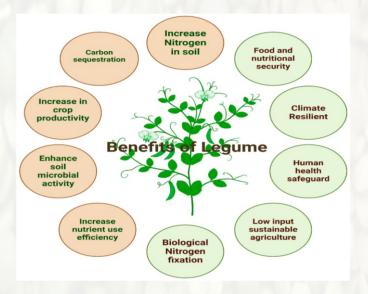
The Pulse Revolution: Emerging origins take center stage

Ms. Harsha Rai Owner MAYUR GLOBAL CORPORATION

Pulses play a vital role in promoting sustainable agriculture and food systems. As nitrogen-fixing crops, they naturally enrich soil fertility, reducing the need for synthetic fertilizers and lowering greenhouse gas emissions. Pulses are also highly water-efficient, making them ideal for cultivation in arid and semi-arid regions. Their ability to grow in diverse climates with minimal inputs supports environmental resilience and biodiversity. Moreover, pulses contribute to food security and nutritional balance by offering a rich source of plant-based protein.

As the world shifts toward more climate-smart and resource-efficient farming, pulses stand out as a cornerstone of sustainable agricultural development. Global consumption of pulses is on the rise, fueled by population growth in countries like India, China, Pakistan, and Bangladesh, where pulses form a daily staple in predominantly vegetarian diets.

India, while being one of the world's largest producers and consumers of pulses, has seen a shift in recent years. Unpredictable weather and more lucrative returns from oilseed crops have led many Indian farmers to reduce pulse cultivation. Consequently, domestic output has declined, increasing the country's reliance on imports. In 2024, India imported an estimated 6.63 million tonnes of pulses—twice the volume recorded the previous year. This growing demand has opened up lucrative prospects for emerging suppliers, positioning India as a critical and reliable buyer in the global market.



Emerging Origins in Pulse Production

As local production in major consuming countries struggles to match rising needs, the demand for imports continues to grow. This shift has created a strategic opening for emerging origins to expand their pulse cultivation and strengthen their role as key exporters. Let's begin by examining Brazil's journey in pulse production.





Brazil: A Rising Star in Pulse Production

Brazil has quickly positioned itself as one of the most promising emerging players in the global pulses market, showing steady year-on-year growth. Initially focused on green mung beans, the country ventured into Black Matpe (Urad) cultivation just three years ago. Starting with a modest production of 5,000–8,000 metric tons, Brazil has scaled up impressively, with projections estimating a 2025 output of around 250,000 metric tons.

Bean Production (in MT) Brazil (LSKB, BLACK BEANS DRKB AND CARIOCA)

2020	2021	2022	2023	2024	2025
3,222,000	2.894,000	2,990,000	3,037,000	3,199,000	3,229,000

From South America to Africa

Beyond Brazil, Africa is emerging as a significant player in the global pulse market. The continent has seen a remarkable rise in pulse cultivation over the past few years, driven by a combination of cultural, economic, and global market factors. Pulses have long held deep cultural significance across African societies and are central to many traditional diets.

Africa's Pulse Portfolio

Countries like Tanzania, Mozambique, Malawi, and Sudan now collectively contribute nearly 17% of global pigeon pea and production. This shift not only boosts farmer incomes but also drives broader economic benefits—such as value addition, agro-processing, and job creation—contributing meaningfully to poverty reduction. Africa's pulse portfolio is also expanding to include crops like mung beans and chickpeas.

Central Asia's Pulse Ambitions

Shifting focus to Central Asia, Kazakhstan has quietly emerged as a strong contender in the global pulse production landscape. With vast arable land, favorable agro-climatic conditions, and a strategic push for crop diversification, the country has seen impressive

growth—particularly in lentil cultivation.

Kazakhstan's Pulse Industry

In recent years, Kazakhstan has expanded its pulse acreage to approximately 700,000 hectares. Lentils have led this growth, rising from just 70,000 hectares in 2014 to around 350,000 hectares last year, yielding 455,000 metric tons. Peas are also widely grown, with 200,000 hectares planted this year.

Russia's Pulse Revolution

In Eastern Europe, Russia has witnessed a phenomenal surge in pulse production, with significant increases in peas, lentils, and chickpeas. The country has emerged as the world's largest producer of peas, and its pulse industry is poised for further growth. Russia is now exploring opportunities to diversify its pulse production to include urad (black matpe) and tur (pigeon pea)

Russia's Pulse Industry

The growth in pulse production in Russia can be attributed to the shift in acreage from cereals, whose prices have dropped. As a result, pulse crops have become an attractive alternative for farmers. Russia's chickpea production is notable for its small-calibre varieties, which are priced competitively in the global market.

Peas Production (in MT) in Russia.

2020	2021	2022	2023	2024	2025
2,740,000	3,168,000	3,616,000	4,715,000	4,306,000	4,452,000

Shifting Sowing Patterns Put Ukraine on the Pulses Map

After witnessing the steady rise of Kazakhstan and Russia as notable pulse-producing origins over the past few years, all eyes are now on Ukraine. Despite facing significant geopolitical challenges, Ukraine is rapidly emerging as a promising hub for pulses such as dry peas, lentils, and chickpeas. Its rich black soil, conducive agroclimatic conditions, and recent push toward crop



diversification have enabled farmers to shift towards high-value, export-oriented crops like pulses. With disrupted grain corridors prompting a rethink of traditional cropping patterns, Ukrainian growers are finding increased value in pulses—both economically and agronomically. As a result, global buyers, including from India, are beginning to explore Ukraine as a viable alternative source for quality pulses. The country's proximity to European markets and growing logistics infrastructure only strengthens its position as the next frontier in pulse production.

Peas Production (in MT) in Ukraine.

ſ	2020	2021	2022	2023	2024	2025
	479,000	566,000	26,000	409,000	476,000	485,000

Argentina: A Key Player in the Global Pulses Market

Following the promising pulse-producing regions of Brazil, Africa, Kazakhstan, and Russia, let's turn our attention to another key player in the global pulses market: Argentina. With its unique strengths and opportunities, Argentina is making a notable contribution to the world's pulse production. Pulses are a significant crop in Argentina, with chickpeas, lentils, and dry beans being major varieties.

Peas Production (in MT) in Argentina

2020	2021	2022	2023	2024	2025
479,000	539,000	483,000	494,000	365,000	472,000

Common challenges faced by emerging markets in pulse production:

Despite their growing prominence, emerging pulseproducing countries share common challenges that can impact their long-term success. Inconsistent quality standards, inadequate infrastructure, and limited access to finance and technology can hinder production efficiency and export competitiveness. Additionally, climate variability and pest pressures pose significant risks to pulse crops, affecting yields and quality. Furthermore, meeting stringent phytosanitary and quality requirements in key export markets can be a hurdle for emerging producers. Addressing these challenges will be crucial for emerging markets to sustain their growth momentum and capitalize on the increasing global demand for pulses.

The Future of Pulse Production: A Promising Outlook

As we've explored the emerging origins in pulse production, it's clear that the global pulse industry is undergoing a significant transformation. From Brazil's rapid growth in Black Matpe production to Africa's expanding pulse portfolio, Kazakhstan's lentil ambitions, Russia's pulse revolution, and Argentina's strategic pulse production — each region is carving out its niche in the global market.

Key Takeaways:

- Pulses are a vital crop for sustainable agriculture and food security, offering a rich source of plantbased protein and environmental benefits.
- Emerging origins are capitalizing on growing global demand, driven by India's increasing reliance on imports and expanding markets in Africa, Asia, and beyond.
- Despite common challenges, emerging pulseproducing countries are poised for long-term success with strategic investments, improved infrastructure, and quality standards.

The Pulse Revolution: A Call to Action

As the world shifts toward more climate-smart and resource-efficient farming, pulses are poised to play a critical role in shaping the future of food systems. Whether you're a farmer, policymaker, or consumer, there's never been a more exciting time to be involved in the pulse industry. Join the pulse revolution and be part of a sustainable, nutritious, and resilient food future!



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Pulse Innovation: Global Trends in Pulse Utilization

Ms. Tanya Der
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As interest in healthier, sustainable plant-based foods grows, pulses are gaining ground as versatile ingredients in global food innovation. Known for their role in traditional dishes, dry peas, lentils, chickpeas, and various beans are expanding into a wide range of modern products, from snack and bakery items to meat and milk alternatives. Trends in new product launches reflect the steady integration of pulse ingredients into mainstream food development worldwide.

The Rise of Pulses in Food Innovation

Looking back at new product launch activity containing pulses over the last 15 years, pea ingredients have continued their growth trajectory, finding their way into over 7,000 new food launches in just the year (Mintel, 2025). In addition, beans and chickpeas are holding their strong presence, and lentil and faba beans continue their slow but steady climb, each contributing thousands of product launches in the past year alone. This trend highlights the growing appeal of pulses as adaptable, sustainable ingredients that align with consumer preferences for nutritious and versatile plant-based options.

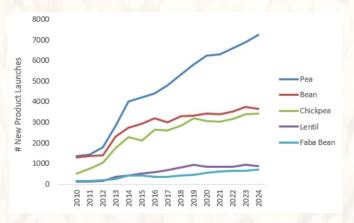


Figure 1: New product launches with pulse ingredients in the global packaged food sector (Mintel)

Pulse proteins and flours are driving highest growth in innovation. Over the last 5 years pea protein volume demand grew at a CAGR of 13.4% (Euromonitor, 2019-24), and pulse flours continued to expand with chickpea flours leading the way. While North America makes up the greatest share of global pea protein demand, Europe and Asia Pacific remain very active players in overall pulse innovation with greater focus on beans and chickpeas. For instance, Mintel stats reveal that 60% of China's pulse innovations were with bean ingredients whereas in India, 72% were with chickpeas.

Pea fibre is an example of a co-product of pulse processing that sometimes gets overlooked. Despite being a relatively understated ingredient, pea fibre is steadily making its way into several food applications especially in the meat substitute segment. In this space, a variety of plant-based fibers such as citrus, bamboo, psyllium and other cereal-derived fibers are commonly incorporated for their functional properties in enhancing texture in alternative meats. Among these, pea fiber has emerged as a leader in this category. 8 years ago, it featured in just 4% of meat substitute product launches; today, that figure has more than doubled to nearly 10%. This upward trend demonstrates the growing recognition of pea fiber's value as a versatile and functional ingredient in the formulation of plant-based meats.

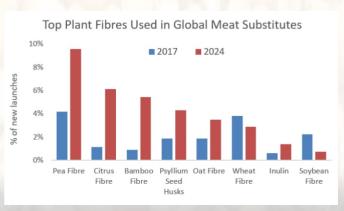




Figure 2: Top plant fibres used in global meat substitutes (Mintel)

Another category where pulses are universal is in bakery products. Pea protein and chickpea flours are the top ingredients mostly commonly used in this segment. Pea protein was found in 1% of all bakery launches last year, shy of soy protein at 1.2% penetration in the same year (Mintel). In terms of pulse flours, chickpea flour is most common with Europe comprising greatest share of launches globally, followed by Asia Pacific. Regionally, Europe is the most diversified in their pulse flour use in bakery with their frequent usage of pea, lentil, faba/bean flours. In contrast, Asia leads in pea flour innovation comprising of 10% of pulse launches within this segment. This growing diversification highlights the expanding role of pulses in bakery innovation, driven by regional preferences and the functional benefits of pulse-based ingredients.

Snacks is an important category that has pioneered the way for pulses. From roasted and baked snacks to puffed products and protein bars, pulses are often positioned as the 'hero' in these products. Globally, countries such as India, the USA, the UK, and China are leading in pulse-based snack development. In India, traditional pulse-based snack mixes remain a staple, reflecting deeprooted traditions. In contrast, the U.S. market leans toward savoury pulse chips and protein-rich energy snack bars. Meanwhile, in China, pulses are a mainstay in meat

snacks e.g. meat floss, offering a unique fusion of plant and animal protein sources. Chickpea is the dominant pulse flour leading in most innovations, followed by pea and lentil flours. While pea protein is making inroads in this category, it is still considered niche--often overshadowed by more established soy or wheat proteins.

In addition to bakery, snack and meat applications, pulses are also performing well in other categories such as dairy, prepared meals, pastas and food coatings. It's clear that pulses have an important place in food product development.

As the global food industry becomes increasingly dynamic and competitive, manufacturers are seeking functional ingredients that align with regional taste preferences and technical requirements. Pulses, with their health and sustainability benefits, and their adaptability across processing formats, present a strategic opportunity to differentiate products in a crowded and quickly evolving marketplace.



Recipes

Lentil Greek Salad with Dill Sauce



Ingredients

Greek Lentil Salad:

- 1 cup uncooked lentils
- 1 pint of cherry tomatoes, halved
- 1 cucumber, diced
- two 3-ounce cans of tuna, drained and flaked (optional)
- pepperoncini or kalamata olives (optional)

Dill Yogurt:

- 1 cup Greek yogurt
- 1 tablespoon olive oil
- 1 tablespoon vinegar or lemon juice
- 1/2 teaspoon garlic powder
- 1 generous pinch of fresh or freeze-dried dill
- 1 teaspoon salt

Instructions

- 1. Cook your lentils.
- 2. Segment ingredients in meal prep containers.
- 3. Mix the yogurt ingredients in a separate bowl.
- 4. Store everything in the fridge.
- When you're ready to eat, mix each salad and drizzle with olive oil, lemon juice, and a pinch of salt. Top with a dollop of the dill yogurt. YUM YUM YUM.

Spiced Chickpea Bowls



Ingredients

Spiced Chickpeas:

- 1 tablespoon olive oil
- 1/2 chopped onion
- 1 clove garlic, minced
- 1 tablespoon each chili powder and cumin
- 1 teaspoon each turmeric and garam masala
- 1 teaspoon sea salt
- dash of each **cinnamon and cayenne** (to taste)
- two 14-ounce cans chickpeas, drained and rinsed
- two 14-ounce cans fire-roasted diced tomatoes

Bowls:

- cucumbers
- couscous
- mint, parsley, cilantro
- yogurt or hummus
- olive oil
- lemon juice
- toasted pita wedges

Instructions

- 1. Heat the olive oil in a large skillet over medium heat. Add the onion; saute until soft. Add the garlic, spices, salt, and chickpeas stir until very fragrant. Add the tomatoes (undrained) and simmer for 20 minutes while you prep the other ingredients.
- 2. Chop the cucumber, cook the couscous, and mince the herbs. Arrange bowls with desired amounts of all ingredients. Voila!



Head of Product Management - Milling Solutions

Mr. Annarao Patil Buhler (India) Pvt. Ltd.

Hygiene & Innovation in Pulses Processing: Bühler Engineering Advances in Polishing Systems

Pulses such as lentils, chickpeas, and beans are vital to global food security and nutrition, especially in developing economies. However, delivering pulses from farm to consumer requires rigorous process control to ensure food safety, quality, and compliance. Among the various unit operations, polishing has traditionally been undervalued. Yet, from both a microbial and operational standpoint, polishing represents a critical control point.

As regulatory frameworks and consumer expectations evolve, conventional polishing technologies are proving inadequate. In response, advanced systems such as Bühler's Pulshine pulse polisher offer a significant step forward in hygienic design, mechanical efficiency, and product integrity.

Hygiene as a Core Pillar in Pulses Processing

The modern pulse processing chain, from cleaning and grading to dehulling, polishing, and packaging, introduces several contamination vectors. Hygiene breaches at any stage can compromise product safety, shorten shelf life, and lead to regulatory non-compliance, especially in export markets governed by FSMA (USA), FSSAI (India), EU Regulation 852/2004, and Codex Alimentarius standards.

Polishing plays a unique role in this context by removing residual husk, surface dust, and microbial biofilms. Failure to maintain hygienic conditions during this phase can result in elevated microbial loads, increased spoilage rates, and suboptimal sensory quality.

Functional Role of Polishing in Pulses Processing

Polishing contributes beyond surface aesthetics. Core functionalities include:

Surface Decontamination: Mechanical removal

of dust and microbial residues.

- Better Consumer acceptance: Achieving a uniform, glossy finish enhances consumer appeal and visual grading.
- Shelf-Life Extension: Reduction of moisture retention and microbial activity.
- Improved Cooking: Improved water absorption and reduced cooking time.
- Market Standardization: Visual uniformity and compliance with export grading criteria.

These factors collectively enhance product value, storage stability, and consumer acceptability.

Limitations of Conventional Polishing Systems

Traditional polishers typically use leather or nylon rollers in combination with horizontal screw conveyors. While mechanically robust, these systems suffer from several critical hygiene and performance issues:

- Use of Non-Food Grade Material: Leather and nylon degrade over time, fostering microbial colonization, and are non-compliant with modern food safety standards.
- Sanitation Challenges: Complex geometries and inaccessible internals complicate effective cleaning.
- Residue Retention: Accumulation of fines and dust contributes to recurring contamination.
- High Operational Costs: Increased energy usage and frequent component replacement drive up the total cost of ownership.
- Process Variability: Inconsistent polishing quality impacts downstream processing and market grading.

Alternate polishing methods such as airstream, vibratory,



or integrated multi-stage systems offer marginal improvements but introduce new challenges like high energy demand, spatial inefficiency, and increased wear and tear.

Components of Traditional Polisher





Bühler Pulshine pulse polisher: A Step-Change in Hygienic Design

The Bühler Pulshine pulse polisher represents a paradigm shift, focusing on mechanical precision, hygienic engineering, and adaptability. Key engineering features include:

Hygienic Engineering

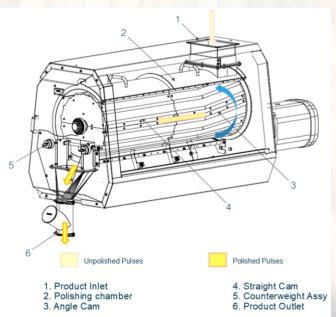
- Food-Grade Contact Surfaces: All components in contact with the product are non-absorbent and certified for food-grade applications (e.g., stainless steel, polymer composites).
- CIP-Compatible Design: Smooth, enclosed internal surfaces minimise the number of microbial harborage points.
- Zero-Residue Retention: Internal geometry

- ensures the complete discharge of processed material.
- Reduced Energy and Maintenance Requirements: The absence of abrasive rollers reduces wear and lowers power consumption (kWh/MT).

In-field data show that processors typically achieve target polish levels with a 1.5% to 3% moisture addition, sometimes supplemented by liquid glucose, depending on regional quality expectations.

Working Principle

- Cam-Based Agitation System: Pulses are gently moved around inside a stainless-steel chamber
 (2) using a rotating drum with specially shaped cams.
- Dual Motion Pathways: The angled cams (3) make the pulses tumble and rub against each other for polishing, while the straight cams (4) help move them forward evenly.
- Counterweight Assembly (5): The system helps ensure a consistent polishing degree with ease.
- External Adjustment Controls: Operators can easily adjust the polishing level in real time, depending on the type and quality of pulses being processed







Global Relevance and Compliance

With increasing demand for polished pulses in India, the Middle East, Southeast Asia, Africa, Canada, and the UK, Bühler's pulse polishing solution enables processors to:

- Align with evolving consumer preferences
- Meet regulatory frameworks in these markets
- Product hygiene and visual appeal are not optional-they are prerequisites

The Pulshine pulse polisher also supports millers aiming for compliance with major food safety standards, which are essential for exporters navigating a fragmented yet stringent global food safety landscape. These standards include:

- FSMA (USA)
- FSSAI (India)
- EU 852/2004
- Codex Alimentarius

Redefining Hygiene Standards in Pulse Polishing

Pulse polishing has evolved from a cosmetic step to a critical processing node affecting microbial stability, consumer perception, and regulatory compliance. As the industry moves toward integrated, hygienic, and energy-efficient systems, solutions like the Pulshine pulse polisher exemplify the next generation of food-grade engineering.

For technical decision-makers and plant engineers, hygienic mechanical design is no longer an optional consideration. It is foundational to process viability in global pulse supply chains.

The Bühler Pulshine pulse polisher exemplifies this paradigm shift. It is not merely a machine. It is a strategic investment in food safety, quality assurance, and process sustainability.

For food technologists and plant engineers alike, it marks a transition from traditional mechanics to innovative, sanitary engineering, delivering not just polished pulses but also polished performance.



Ministry of Agriculture & Farmers Welfare Department of Agriculture & Farmers Welfare (DA&FW) Third Advance Estimate of Production of Food Grains

As on 28.05.2025 Production in Lakh Tonnes

							Broduction					
Crop	Season	2014 15	2015 16	2016 17	2017 10	2010 10	ייר סייטר	20.00	2021 22	כני ניטנ	70.000	30.4.00
		CT-4T07		/1-9107	9T-/T07	61-9107	07-6107	17-0707	77-1707	57-7707	7073-74	C7-4707
	Kharif	1223.36	1195.62	1287.43	1311.60	1334.24	1358.91	1419.58	1471.29	1480.90	1487.94	1605.71
وادويور	Rabi	1125.34	1156.56	1232.38	1284.37	1297.09	1385.88	1433.21	1411.85	1414.82	1448.09	1517.25
כפופפוז	Summer	ത	ඔ	@	ඔ	@	@	@	<u>ම</u>	140.56	144.50	164.25
	Total	2348.71	2352.18	2519.81	2595.97	2631.33	2744.79	2852.79	2883.14	3036.28	3080.52	3287.21
Tur	Kharif	28.07	25.61	48.73	42.90	33.15	38.92	43.16	42.20	33.12	34.17	35.61
Gram	Rabi	73.32	70.58	93.78	113.79	99.38	110.78	119.11	135.44	122.67	110.39	113.37
	Kharif	12.81	12.50	21.76	27.51	23.63	13.30	15.07	18.65	17.68	16.04	13.02
- C	Rabi	6.79	96.9	6.55	7.41	6.97	7.52	7.23	9.11	6.33	4.87	5.26
Orad	Summer	_@	ø	Ø	ø	@	@	Ø	ø	2.30	2.28	2.78
	Total	19.59	19.45	28.32	34.92	30.60	20.81	22.30	27.76	26.31	23.19	21.06
	Kharif	7.94	10.00	16.43	14.33	17.84	18.26	19.96	14.80	17.18	11.54	17.47
	Rabi	5.81	5.93	5.22	2.90	6.71	6.83	10.89	16.86	1.10	1.01	0.98
810018	Summer	ത	ത	@	ø	@	@	@	ø	18.48	18.47	19.74
	Total	13.75	15.93	21.65	20.23	24.55	25.09	30.85	31.66	36.76	31.03	38.19
Lentil	Rabi	10.35	9.76	12.24	16.22	12.28	11.03	14.94	12.69	15.59	17.91	17.72
	Kharif	8.48	7.20	8.89	8.31	6.29	8.73	7.99	69.9	8.24	7.99	8.84
Other Pulses	Rabi	17.95	14.70	17.68	17.78	14.50	14.89	16.28	16.58	17.90	17.78	17.59
	Total	26.44	21.91	26.57	26.10	20.79	23.62	24.27	23.27	26.14	25.77	26.43
	Kharif	57.31	55.30	95.82	93.06	80.91	79.21	86.18	82.35	76.21	69.74	74.95
Total Bulcoc	Rabi	114.22	107.93	135.47	161.10	139.85	151.04	168.45	190.67	163.58	151.97	154.91
l Otal r ulses	Summer	ඔ	ම	@	ම	@	©	@	ම	20.79	20.75	22.52
	Total	171.52	163.23	231.29	254.16	220.76	230.25	254.63	273.02	260.58	242.46	252.38
	Kharif	1280.67	1250.92	1383.25	1404.66	1415.16	1438.12	1505.76	1553.64	1557.11	1557.68	1680.66
Total Egod Grains	Rabi	1239.56	1264.50	1367.84	1445.47	1436.93	1536.92	1601.65	1602.52	1578.41	1600.06	1672.16
	Summer	ග	ග	<u>@</u>	©	©	©	<u>@</u>	<u>ම</u>	161.35	165.24	186.77
//	Total	2520.23	2515.41	2751.10	2850.14	2852.09	2975.04	3107.42	3156.16	3296.87	3322.98	3539.59
Note . Data for 2021-25 is as nor Third Advance Estim	21.75 is as no	ar Third Advan	re Ectimates									

Note: Data for 2024-25 is as per Third Advance Estimates

@ Included in Rabi, \$ Included in Kharif

For more information visit the website upag.gov.in



THE PULSES CONCLAVE 2025





















With best compliments from







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Email: bkm@4pcorporation.com

Polish to perfection – Experience hygienic, food-safe pulse polishing

Pulshine®, a breakthrough solution from Bühler, enables processors to achieve the desired polish on pulses based on market requirements, without using non-food grade materials. Focusing on low maintenance and increased efficiency, this hygienic leather-free innovation marks a major shift from conventional to modern design.

Suitable for a variety of pulses:



White peas (whole)



Green grams (whole)



Chickpeas (split)



Red Lentils (split)



Green grams (split)



Pigeon peas (split)



Feeling the Pulse? Get in touch with us.

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