



CSAU VARIETAL *almanac*



Directorate of Research

Chandra Shekhar Azad University
of Agriculture & Technology, Kanpur-208002



Chandra Shekhar Azad University of Agriculture & Technology, Kanpur came into existence in 1975 and emerged as a premier Agriculture Institution of the nation since 1893 with meritorious records of research, teaching and extension education since its inception. It spread over in 22 districts (Kanpur Nagar, Kanpur Dehat, Auraiya, Etawah, Farrukhabad, Kannauj, Mainpuri, Etah, Agra, Firozabad, Mathura, Aligarh, Hathras, Kasganj, Hardoi, Sitapur, Lucknow, Lakhimpur Kheri, Unnao, Raebareli, Fatehpur & Kaushambi) & five commissionaires (Kanpur, Lucknow, Allahabad, Agra & Aligarh) of Uttar Pradesh, covering two agro-climatic zones of UP (South Western Semi-Arid & Central Plain). *“Making provision for the education of rural people of Uttar Pradesh in different branches of agriculture, including rural industry and business and other allied subjects, furthering the frontiers of research in agriculture and allied sciences; and for undertaking field and extension programmes in its service area”*. Along with commitment to continuous improvement in agriculture and allied sectors by developing quality manpower, providing relevant production technologies & dissemination of technologies to the farmers fields through agricultural education, research and extension approaches have been major area of concern.

Directorate of Research is established at Kanpur and coordinates all research needs of area jurisdiction of the University. The University has a strong research base comprising of four Research Sections (*Rabi* Cereals, Oilseeds, Legumes and Vegetables), five Regional Research Stations (Dalepnagar- Kanpur, Saini-Kaushambi, Mainpuri, Hazratpur- Firozabad & Kalai-Aligarh) and four crop units (Sorghum, Tobbaco, Rice & Cotton) and fourteen Research Farms are mandated and equipped to undertake the location specific, problem solving and production oriented multi disciplinary researches and to develop technology suited for different agro-climatic regions. Besides, Centre for Advances Agricultural Science & Technology on Nutritional Crops for capacity building of students & faculty and two Centres of Excellence for Wheat & Vegetables crops are also in operation development of improved cultivars & their matching technologies. Besides, bio-control lab, spawn production lab, bacterial agent production lab,

pesticide residue analysis lab, soil & water nutrient lab, tissue culture lab, bio technology lab, food analysis lab etc. are well equipped and furnished.

Varietal accomplishments

Outstanding contribution of the University has been release of 300 high yielding cultivars, early maturing, diseases/insects resistant, crop varieties/hybrid of cereals, oil seeds, pulses and vegetable besides, cotton, tobacco etc.

internationally known varieties

Wheat (K 9107-Deva)	: Adopted by Bangladesh for large scale cultivation
(K 9006-Ujiyar)	: Adopted by Nepal, released as Achutya
Lentil (K 75-Malka)	: High export quality, high seed demand

nationally known varieties

Chickpea (KGD 1168)	: Wilt resistant, very popular in WB, Assam, Orissa, Bihar
Field pea (Rachna)	: Powdery mildew resistant, popular throughout country
Table pea (Azad P3)	: High yielding, popular throughout country
Urd (T-9)	: Widely adopted throughout country
Mustard (Varuna)	: High yielding, popular throughout country
(Pitambari)	: High yielding, high oil content
Wheat (Shatabdi)	: High protein, high yield, best for the NEPZ
(Halna)	: High protein, rust & blight resistant
(K 1317)	: For restricted irrigation



Most Popular Varieties

Barley	Gitanjali, Ritambhara
Chickpea	Avarodhi, Udai, KGD 1168, KWR 108
Field pea	Rachana, Sapna, Swati, KPMR 400 (Indra), KPMR 522 (Jai)
Groundnut	TG 371A, Amber, Prakash, Chitra, Kaushal, Utkarsh, Avtar
Lentil	Malika, Azad Masoor 1, Shekhar 2, Shekhar 3
Linseed	Laxmi-27, Padmini, Shekhar, Parvati
Maize	Azad Uttam, Sharad Mani, Azad Kamal, Chandramani
Moongbean	K 851, Sweta
Mustard	Varuna, Maya, Kanti, Urvashi, Rohani, Ashirvad, Pitambari
Pigeonpea	Amar, Azad
Sesame	Shekhar, Pragati, Tarun
Sorghum	Bundela, Vijeta
Tomato	Azad T 8
Toria	T-9, Bhawani
Urdbean	Shekhar 1, Shekhar 2, Shekhar 3, Azad 1, Azad 2
Vegetable Pea	Azad P3
Wheat	Deva, Halna, Prasad, Halna, Unnat Halna, Mandakini, Sona, Mahi, Shatabdi, K-1006 and K-1317

University Developed Varieties

Particulars	Crops	Varieties
Cereals - 89	Wheat - 42	C-13 (Awnless), C-46, C-13 (Awned), Padova I, Padova II, K 19-3, K-21, K-25, K-53, K-54, K-68, K-65, Kundan (K-101), K-816, K-852, Bithoor (KML-7406), K Poorvi (K-7410), K-72(K-7229), K-78 (K-827), Sangam (K-7915), Mandakini (K-9351), Triveni (K-8020), Magahar (K-8027), K-088 (K-8804), Indra (K-8962), Deva (K-9107), Ujiyaar (K-9006), Gomti (K-9465), Atal (K-9644), Halna (K-7903), Gangotri (K-9162), Prasad (K-8434), Unnant Halna (K-9423), Naina (K-9533), Shatabdi (K-0307), Sona (KD-9851), Mahi (K-0402), Mamta (K-0607), K-1006, Deva, K-1317 and K-1616
	Barley - 33	C-251, CN-292, CN-294, K-12, K-14, K-18, K-19, K-24, K-169, K-252, Jyoti(K-572/10), Amber (K-71), Vijaya, Azad(K-125), K-253, K-257, K-141, K-318, Lakhan (K-226), Jagrati(K-287), K-341, K-370, Manjula(K-329), K-1155, Geetanjali(K-1149), Pragati(K-0508), Preeti(K-409), Haritima(K-560), Archana (K-0713), Ritambhara(K-551) and Narmada (K-603), Prakhar, K-1425

Group	Crops	Varieties
	Paddy -2	Ashwani and Usar 1
	Maize - 7	K-41, Azad Uttam, Sharad Mani, Azad Kamal, Chandra Mani, Azad Shankar Makka-1 and Azad Shankar Makka-2
	Sorghum-5	Mau Type 1, Mau Type 2, Bundela, Varsha and Vijeta
	Pulses - 58	Gram - 13 T-3, K-5, Radhey, K 468, K850, K-4, KWR-108, Udai, Pragati, Sadabahar-13, Avrodhi KGD-1168 and K-3256(Kabuli)
	Pea - 7	T-163, Shikha, Swati, Rachna, Sapna, Indra (KPMR 400) and Jai (KPMR 522)
	Lentil - 15	T-36, T-8, KLS-218, KLB-303, KL-320, Malika, Shekhar-2, Shekhar-3, LentilAzad-1, Shekhar-4, KLB 13-6, Krish, Krati, KLS-1431 and Shekhar-5
	Pigeon pea-5	T-17, T-7, T-21, Amar and Azad
	Black gram - 11	T-27, T-77, T- 65, T-9, Shekhar-1, Azad Urd-1, Shekhar-2, Azad Urd-2, Shekhar-3, Azad Urd-3 and KU-99-21
	Green gram - 7	T- 44, K -851, Sweta, Swati, KM-2241, KM-2195 and KM-2342
	Oilseed-88	Mustard-26 T-11, Laha-101, Type-16, Type-1, Type-10, Type-151, Type-42, Type-9, Type-36, Type-59, B.S-2, B.S-70, K-88, Varuna, Kanti, Shekhar, Rohini, Vardan, Vaibhav, Urvashi, Basanti, Maya, Ashirvad, Pitambari, Azad Mahak [KMR (E 15-2)] and Surekha
	Toria - 5	T-9, T-36, Bhawani, Tapeshwari and Azad Chetna
	Sesame - 7	T-12, T-4, T-13, T-78, Shekhar, Pragati and Trun
	Linseed-29	T-1, T-477, T-126, T-603, T-397, Mukta, Hira, Neelam, Garima, Sweta, Shubhra, Luxmi-27, Padmini, Sheela, Shekhar, Sharda, Gaurav, Shikha, Rashmi, Parvati, Ruchi, Uma, Imdu, Surya, Rajan, Mau Azad Alsi-1, Mau Azad Alsi -2, Anu {LCK 1021) and Aparna

	Ground nut - 15	T-25, T-99, T-32, T-28, T-64, Chandra, Kaushal, Chitra, M.A-16, Amber, Prakash, T.G-37A, Utkarsh, Divya and Avtar
	Safflower-1	Type-65
	Castor - 5	Type-3, Tari-4, Kalpi-6, Chandra Prabha and Balliachayan (7911)
Vegetable-58	Brinjal - 7	Kalyanpur Type -3, Azad B-1, Azad B-2, Azad B-3, Azad Kranti, Azad Hybrid and Azad Sankar
	Tomato - 9	Angoorlata, Type-1, Azad T-2, Azad T-3, Azad T-5, Azad T-6, KTH-1 (Hybrid), KTH-2 (Hybrid) and Azad T-8
	Table Pea-5	Azad P-1, Azad P-2, Azad P-3, Azad P-4 and Azad P-5
	Bitterguard-3	K. Sona, Baramasi and Kalyanpur
	Okra - 4	Azad Bhindi-1, Azad Bhindi-2, Azad Bhindi-3 (Azad Krishna) and Azad Bhindi-4 (Mohani)
	Chilli - 3	Azad Mirch-1, Azad Mirch - 2 and KCH - 3 (Hybrid)
	Spong guard - 3	Kalyanpur Hari Chikni, Azad torai Chikani -1 and Azad Torai - 2
	Bottle guard - 4	Kalyanpur Long Green, Azad harit, Azad nutan (long) and Azad sankar Lauki-1 (Hybrid)
	Ash gourd-1	KAG - 1
	Bitter gourd - 2	Kalyanpur Baramasi -7 and Kalyanpur sona
	Pumpkin-1	Azad Pumpkin -1
	Cucumber-1	Kalyanpur Green
	Sem - 3	Type - 2, Rajni and Azad Sem -1
	Rajmash-1	Azad Rajama 1
	Lobia - 1	5269
	Zimikand-1	Azad Suran -1
	Radish - 1	Kalyanpur No-1
	Termeric-1	Azad haldi-1
	Colocasia-1	Azad arbi-1
	Onion - 1	Kalyanpur Red Round
	Coriander-2	Azad Dhanian-1 and Azad Dhanian-2

	Fennel - 1	Azad sauf-1
	Fenugreek - 2	Azad methi -1 and Azad methi-2
	Ajwain - 1	Azad Ajwain -1
	Nigella - 1	Azad Kalaunji -1
Other - 6	Cotton - 5	Pramukh, Syamali, Lohit, Vikash and CAD 4
	Tobacco - 1	Azad Kanchan

Recently developed Varieties

Wheat Variety K 1317 developed for rainfed unirrigated timely sown condition of Eastern & Central Uttar Pradesh, Bihar, Jharkhand, West Bengal and Assam, crop matures in 120-128 days, average yield 27.13 q/ha and yield potential 54.2 q/ha, grain contain 43.05 PPM Iron and 38.3 PPM Zinc and resistant to rusts. The variety released by Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agricultural Crops held on 09-10.07.2017.



Barley Variety Prakher (K 1055) developed for timely sown, irrigated conditions with normal and saline soil, plant height 105 cm, crop mature in 130-135 days, yield 38-42 q/ha.



Lentil Variety Shekhar 4 (KLB 345) developed for late sown conditions, high yielding (18-20 q/ha), early maturity (110 days), resistant to wilt and rust bold seeded with red cotyledons and recommended for whole Uttar Pradesh. The variety released by Central Sub-Committee on Crop Standards,



Notification and Release of Varieties for Agricultural Crops held on 09-10.07.2017.

Lentil variety Shekhar 5 (KLB 122) developed for late sown condition (December sowing) for entire Uttar Pradesh, maturity 110-115 days, resistant to wilt and rust, seed reddish grey, small seeded, yield potential 15-16 q/ha. The variety released by Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agricultural Crops held on 09-10.07.2017.



Linseed Variety Uma (LCK-1101) developed for rainfed condition, erect, blue flower, 60 cm plant height, resistant to *alternaria blight*, rust and wilt, medium capsule, light brown seeded, 7.8 g test weight with yield potential 8-10q/ha. The variety released by Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agricultural Crops held on 31.01.2017.



Linseed Variety Indu (LCK-1108) developed for irrigated condition, erect, blue flower, 72-75 cm plant height, resistant to *alternaria blight*, rust and wilt, medium capsule, brown seeded, 9.6 g test weight with yield potential 10-12q/ha dual purpose. The variety released by Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agricultural Crops held on 31.01.2017.



Moongbean Variety KM-2342 developed for both Zaid and Kharif season of entire U.P., yield potential 10-12Q/ha, crop matures in 60-62 days, grain Shinee green,

synchronous maturity, resistance to YMV, CLS, Anthracnose, Web blight and white fly. The variety released by State Seed-Sub-Committee meeting held on 10.04.2018.



Linseed variety LCK -1009 suitable for double purpose, yield potential 15-18 q/ha, grain and fiber 11q/ha, resistance to alternaria blight, oil 58%/ha and 56% omega -3 in oil. The variety released by State Seed-Sub-Committee meeting held on 10.04.2018.



Linseed variety Surya (LCK-1404) notified for zone I which includes Himachal Pradesh, Punjab, Haryana and Jammu for irrigated condition, yield potential of 2270 kg/ha under best field condition higher Oil yield 500kg/ha. It contains higher Omega-3 Fatty acid content (62.34%) than the other existing varieties of linseed, highly resistant to rust and moderately resistant to wilt, moderately resistant to bud fly, blue flower, dwarf, bushy in habit, twisted aestivation, medium size capsule, and brown colour seed with medium seed weight.



Groundnut Avtar (ICGV 93468) developed for summer cultivation, suited for sandy loam or loamy sand soil, variety is suited after potato or vegetable pea or mustard crop mature in 90-110 days double seeded, dark red colour with average yield of 22-26 q/ha. crop resistant to tikka disease.



Toria Tapeshwari (T.K.06-1) developed for entire Uttar Pradesh, early sown condition, early maturity (90-95 Days), bold seed size (2.89g/1000 seed), Yield Potential (12-14.5 q/ha) and escapes from disease specially *Alternaria blight* and White rust most suitable for multiple cropping system and oil content range (41.8- 42.4%) notified (S.O.6318E) notified for seed production.



Mustard variety Azad Mahak (KMR (E)15-02) developed for entire Uttar Pradesh, yield Potential (24-25 q/ha) and bold seed and size (5.20g/ 1000 seed), suitable for Early sown condition, Early maturity (120-125 days), escapes from disease specially *Alternaria blight* and White rust, tolerance to high temperature at seed germination stage, Oil content range (41.6-42.1%) oil yield 852 kg/ha which is 9.20% higher in compression to PM 27(ZC).



Linseed variety Aparna (LCK 1611)

Suited for irrigated condition, medium plant height, matures in 140 days, non shattering medium size capsule, seed medium bold, colour light brown, average yield 13-15 q/ha, oil content 37%, Omega-3 54%, resistant to rust & wilt.



Toria variety Azad Chetna(TKM 14-2) developed for entire U.P., Yield Potential (12-14q/ha) and bold seed size (3.3g/1000 seed), suitable for early sown condition, early



maturity (90-95 Days), escapes from disease specially *Alternaria blight* and White rust, most suitable for multiple cropping, oil content ranged (42.2 – 42.4%), oil yield 608 kg/ha which is 18.98% higher in compression to Bhawani (ZC).

Wheat Variety K 1616 developed for entire Uttar Pradesh, suited for rainfed ecology, plant height 106cm, crop matures in 120 - 125 days, average yield 30 - 40 q/ha. seed colour in amber, weight of 1000 seeds is 42.0gram with 11.77% protein and resistant to yellow, white and black rust.



Barley Variety Azad Jau -33 (K 1425) developed for timely sown, irrigated saline conditions plant height 79 cm, crop mature in 120-125 days, light yellow seed colour with average yield 33-35 q/ha.

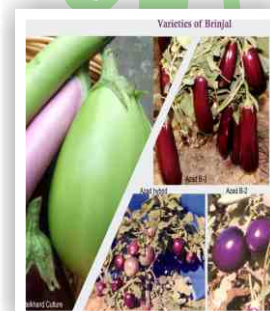


Mustard variety Surekha (KMR 16-2) developed for entire Uttar Pradesh, timely sown, irrigated condition, high temperature tolerance crop matures in 125-130 days, average yield 28-32 q/ha with 42.6% oil, resistant to *Alternaria blight* and White rust tolerance.



Lentil variety Shekhar 7 (KLS - 1431) developed for late sown irrigated condition (December sowing) for entire Uttar Pradesh, plant height 30-40 cm, maturity 110-115 days, resistant to wilt and rust, seed grey, small seeded, yield potential 16-18 q/ha.





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