

Weekly Publication of



**Cotton
Association
of India**

COTTON STATISTICS & NEWS

Edited & Published by Amar Singh

2022-23 • No. 28 • 11th October, 2022 Published every Tuesday

Cotton Exchange Building, 2nd Floor, Cotton Green, Mumbai - 400 033
Telephone: 8657442944/45/46/47/48 Email: cai@caionline.in
www.caionline.in

Cottonseed and Its Valuable By-Products - Indian Perspective

A Cost & Management Accountant (CMA) and Post Graduate in Commerce, he worked in Tariff Commission/Bureau of Industrial Cost & Prices (BICP), then as Deputy Director (Cost) at Ministry of Industry/Ministry of Finance, handling Cost-Price Study of Reputed Industries like Cement then, Sugar, Coal, Pesticides, Manmade Fibres, Paper, Jute, linoleum etc. from 1980 to 1988. Later. He was appointed Director (Economics)/Financial Survey in the Office of Textile Commissioner (Ministry of Textiles), through Union Public Service Commission, and retired as Joint Textile Commissioner

**EXPERT'S
Column**



Shri. A.K. Chowdhury
*Retd. Joint Textile Commissioner,
Govt. of India
Secretary, All India Cottonseed
Crushers' Association*

(Economics). He was also a Consultant in Cotton Corporation of India (CCI) from 1997-2010, handling Statistics/Front Line Demonstrations in Cotton (FLDs) assigned by the Ministry of Agriculture, Govt. of India. Since 2014, he is working as Secretary, AICOSCA (All India Cottonseed Crushers' Association). He has published the following books:-

- 1) Compendium of Textile Statistics
- 2) Indian Cotton - A Profile

He has also contributed articles for Monthly Journal of Western India Regional Council (WIRC) of Institute of Cost Accounts of India.

A by-product of the cotton plant, cotton seed is also a valuable source of linters, hulls, edible oil and cake (meal), all of which have several industrial and other uses. These are also excellent and nutritious source of cattle, poultry and fish feed.

Cotton seed forms 2/3rd portion of seed, cotton, while lint forms remaining 1/3rd portion. Since all parts of cotton seed which form 2/3rd

portion of the seed cotton provide food, feed and valuable industrial products, cotton seed is rightly termed as "Golden Goose". Cotton seed has also export demand and earns valuable foreign exchange.

There are two principal components of cotton seed. First is the hull i.e. outer covering of the seed from which cotton fibres and cotton linters are available and secondly, the kernel

from which cotton seed oil and decorticated cottonseed cake(meal) are obtained.

Cottonseed By-Products :

The major cottonseed by-products are summarised below:

Linters	Short fibres still clinging to the seed after ginning.
Hulls	A tough protective covering of the kernel.
Cottonseed oil	Extracted from kernel.
Cottonseed cake	Expeller oilcake including both decorticated as well as undecorticated.
Cottonseed Meal	Residue after extraction of oil (solvent extracted products is referred to as meal).

Cottonseed Utilisation Pattern:

Cottonseed is generally utilised for the following purposes:

1. Feeding whole cottonseed to the cattle
2. Sowing purpose
3. Processing for obtaining oil as well as by-products like linters, hulls, cottonseed oilcake and cottonseed extraction.

Production and Availability of Cottonseed for Processing in India:

The production and availability of cottonseed for processing in different years are given below:

	2017-18	2018-19	2019-20	2020-21	2021-22
Cotton Production(Lakh Bales of 170 Kg. each)	370	333.05	365.00	352.48	315.43
Cottonseed Production @333Kg/Bales	123.21	110.39	121.55	117.38	105.04
Retained for sowing & Direct consumption	5.00	5.00	5.00	5.00	5.00
Mark able Surplus available	118.21	105.89	116.55	112.38	100.04
Production of washed Cottonseed oil 12%	14.19	12.31	14.00	13.49	12.00

Unlike other oil seeds, cottonseed is not grown exclusively for oil and feed. The main product is cotton fibre (lint). In estimating cottonseed production, a uniform ginning percentage of 33 1/3rd% is being used (source "Cottonseed and its utilisation"- by Shri S.N. Pandey, former Director, Central Institute for Research on Cotton Technology).

It is indeed a matter of great pride that cottonseed production in India is now above one crore metric ton mark and is the highest among other major oilseeds like Soyabean, Groundnut, Mustard in terms of production tons.

A brief description of cottonseed by-products is given below

Cotton Linters :

After the cotton fibre is removed at the ginning, the seed has some remaining fibres attached to the hulls. These short, fuzzy fibres which are unsuitable for spinning are called linter. These remain on the cottonseed even after employing the most efficient ginning process for recovery of lint from seed cotton. Linters account for about 8-10% of the weight of ginned seeds. Linters are rich in cellulose and are potential source of raw material for various industrial products like paper, low grade absorbent cotton, (also referred as surgical cotton) and in the mattress industry. Pure first cut linters are potential raw material for high grade bond currency, low grammage tissues and filter paper.

In America, the tissue paper prepared out of linters are in great demand especially by ladies for removal of make up, since it is not considered sensitive to skin, being of organic origin.

Bleached cottonseed linters are also being used by our Ordnance factories for production of propellants used for gun ammunition and also filter paper.

Cottonseed Hulls :

Cotton seed hull is another important by product of cottonseed. It is the tough protective covering of the cottonseed which must be removed before the kernel can be exposed and the oil extracted. Hull is the seed coat the weight of which varies between 40% and 50% of the weight of the whole cottonseed depending upon the varieties and species of cotton. The availability of the cottonseed hulls depends upon the crushing methods adopted. Since scientific crushing adopted in the country is hardly 10% to 12%, tons of hulls are presently available. Hulls are being used as roughage in live-stock rations.

Cottonseed Meal:

The cottonseed meal is a product of oil extraction. Since the meal has about 50% protein, it has been found as one of the best protein concentrate feed for milch cattle. It is very economical and it can be fed to cattle as dry feed. Cottonseed meal or cake (left after extraction of oil) is rich in essential amino acid content, as per scientists.

The relative distribution of linters, hulls and kernel in the ginned seed is shown in Figure 2.1. Figure 2.2 also presents the amount of oil and protein in each of these three seed components.

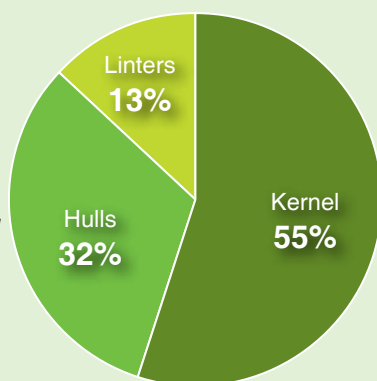
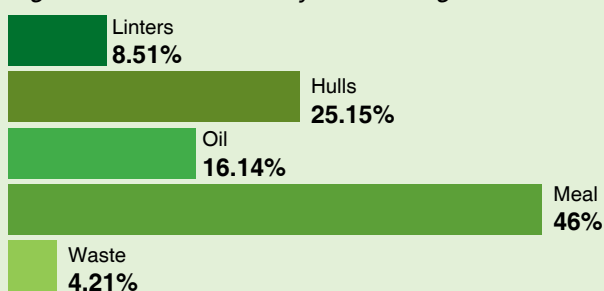


Figure 2.1
Composition Of Ginned Cottonseed

Figure 2.2 Actual Industry Processing Yields



Cottonseed Oil :

Another important by-product of the cottonseed crushing industry is ‘cottonseed oil’. The cottonseed contains about 18-25% oil depending on the quality of seed and the species. According to National Cottonseed Products Association, Inc. and The Cotton Foundation Memphis, Tennessee, USA

Cottonseed Oil



“Development of cottonseed begin in the flower. There is more seed than fibre produced by this plant. Although primarily grown for fibre, cotton has long been recognised as an important source of Quality Vegetable Oil.”

However, according to scientists of (CIRCOT-ICAR), Mumbai, the oil must be refined to remove gossypol, a naturally occurring toxin that protects the cotton plant from insect damage.

As per the 20 facts about cottonseed oil widely published by the American Cottonseed Producing Industry, cottonseed oil has been a part of the American diet for well over a century. It is also America’s original vegetable oil and has been considered as the standard to which other oils are compared.

ICAC Survey :

To bring out the value of cottonseed and its valuable by-products, mention may be made of the results of the Survey carried out by the Washington based International Cotton Advisory Committee(ICAC) of 30 cotton producing countries in the year 2004. The outcome of the Survey is summarised below.

- i) India (along with Argentina) is the least expensive cotton producing country in the world.
- ii) The then net cost of production of one Kilogram of cotton lint was the lowest in India and the highest in USA.
- iii) The then cost of production in India ranged from \$0.50 to \$0.86/Kg in different zones with an average of \$0.70/Kg.
- iv) The net cost was the lowest in India due to high value of cottonseed that found many uses in the country.

Thus, the ICAC Survey brought out the high value of cottonseed and its valuable by-products.

Further, the following observation from an earlier article "Emerging Trends in cottonseed production & utilisation in India" by AICOSCA Chairman, Shri. Sandeep Bajoria, deserve special mention.

"It is said that in Cuba Sugar is a by-product of Sugarcane. This is a reward to the country which has utilised the by-product of sugarcane so efficiently. India needs to learn from this example especially for cotton. By utilising all the cottonseed by-products effectively pressure on lint prices would be reduced without loss to the cotton farmers as well as the processors. Besides this win-win situation for all stake holders in cotton, about 4 to 5 Lakh tonnes of much needed cottonseed oil would be added to our edible oil production."

The above article concluded with the following extracts from the "Handbook of Cotton

in India" published by Indian Society for Cotton Improvement (ISCI) in the year 1999.

"Products of Cotton cultivation have several applications and can be raw materials for various agro industries. If the technologies developed are adopted in the rural areas of the major Cotton growing tracts in the country, they will not only fetch additional income to the farmer, but also open up avenues for rural industries and self employment."

It is therefore, essential that the Central and State Government and voluntary agencies work together to promote by-products utilisation in a big way. Cotton seed oil can be used directly as a cooking medium and also for the manufacture of Vanaspati, soap etc.

(The views expressed in this column are of the author and not that of Cotton Association of India)

All India Weather Summary and Forecast

Weather Warning during next 5 days

11 Oct (Day 1): ♦ Heavy to very heavy rainfall at isolated places very likely over Arunachal Pradesh; heavy rainfall at isolated places over East Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana, Rayalaseema, Interior Karnataka and Tamilnadu, Puducherry & Karaikal.

♦ Thunderstorm accompanied with lightning at isolated places very likely over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Bihar, Odisha, West Bengal & Sikkim, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

12 Oct (Day 2): ♦ Heavy rainfall at isolated places very likely over Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

♦ Thunderstorm accompanied with lightning at isolated places very likely over Uttarakhand, Uttar Pradesh, Jharkhand, Odisha, Madhya Maharashtra, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.

13 Oct (Day 3): ♦ Heavy rainfall at isolated places likely over Rayalaseema and Tamil Nadu, Puducherry & Karaikal.

♦ Thunderstorm accompanied with lightning at isolated places likely over Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.

14 Oct (Day 4): ♦ Heavy rainfall at isolated places likely over Tamil Nadu, Puducherry & Karaikal.

♦ Thunderstorm accompanied with lightning at isolated places likely over Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.

15 Oct (Day 5): ♦ Heavy rainfall at isolated places likely over Tamil Nadu, Puducherry & Karaikal.

♦ Thunderstorm accompanied with lightning at isolated places likely over Coastal Andhra Pradesh Yanam, Telangana, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.

Weather Outlook for subsequent 2 days - During 16th-18th October, 2022

♦ Scattered to fairly widespread light/moderate rainfall likely over East Uttar Pradesh, East Central, East, Northeast & south peninsular India, Islands and along the West coasts.

♦ Isolated to scattered light rainfall activity likely over rest parts of the country except many parts of northwest India and Gujarat where dry weather is likely.

5 Day Rainfall Forecast (MORNING)

11-October-2022

Met-Sub-Division	11-Oct Today	12Oct Wed	13Oct Thu	14Oct Fri	15Oct Sat
1. Andaman & Nicobar Islands	FWS	FWS	FWS	FWS	FWS
2. Arunachal Pradesh	WS	WS	FWS	FWS	SCT
3. Assam & Meghalaya	WS	FWS	FWS	FWS	FWS
4. N. M. M. & T.	FWS	FWS	SCT	SCT	SCT
5. S.H. West Bengal & Sikkim	WS	WS	FWS	FWS	SCT
6. Gangetic West Bengal	SCT	FWS	FWS	FWS	FWS
7. Odisha	SCT	SCT	SCT	SCT	SCT
8. Jharkhand	FWS	FWS	FWS	SCT	SCT
9. Bihar	FWS	FWS	SCT	ISOL	ISOL
10. East Uttar Pradesh	FWS	FWS	SCT	ISOL	DRY
11. West Uttar Pradesh	FWS	ISOL	ISOL	DRY	DRY
12. Uttarakhand	FWS	FWS	ISOL	ISOL	ISOL
13. Haryana, Chd & Delhi	ISOL	ISOL	DRY	DRY	DRY
14. Punjab	ISOL	DRY	DRY	DRY	DRY
15. Himachal Pradesh	ISOL	ISOL	DRY	DRY	DRY
16. J & K and Ladakh	ISOL	DRY	DRY	DRY	DRY
17. West Rajasthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	ISOL	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	FWS	SCT	ISOL	DRY	DRY
20. East Madhya Pradesh	FWS	FWS	ISOL	ISOL	ISOL
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	SCT	FWS	SCT	ISOL	ISOL
24. Madhya Maharashtra	FWS	FWS	SCT	ISOL	ISOL
25. Marathawada	FWS	SCT	ISOL	ISOL	ISOL
26. Vidharbha	FWS	SCT	SCT	SCT	SCT
27. Chhattisgarh	SCT	SCT	SCT	SCT	FWS
28. Coastal A. P. & Yanam	FWS	FWS	FWS	FWS	FWS
29. Telangana	FWS	FWS	FWS	FWS	FWS
30. Rayalaseema	FWS	FWS	FWS	FWS	FWS
31. T.N.,Puducherry & Karaikal	FWS	FWS	FWS	FWS	FWS
32. Coastal Karnataka	FWS	SCT	SCT	SCT	SCT
33. North Interior Karnataka	FWS	FWS	FWS	SCT	SCT
34. South Interior Karnataka	WS	FWS	FWS	FWS	FWS
35. Kerala & Mahe	SCT	SCT	SCT	SCT	SCT
36. Lakshadweep	SCT	SCT	SCT	SCT	SCT

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		



**COTTON
ASSOCIATION
OF INDIA**

Established 1921
ISO 9001:2015



presents



October 17th - 18th 2022

COTTON THE LIFELINE OF INDIA

CAI IN SERVICE OF THE NATION

Welcome Cocktails & Dinner

at Hotel Sahara Star, Mumbai on Monday, 17th October 2022

Inauguration of CAI Centenary Year Celebrations

at Jasmine Banquet Hall-1, Jio World Convention Centre, Mumbai, India

on Tuesday, 18th October 2022

Register Now

Please visit <http://caionline.in/conference>



UPCOUNTRY SPOT RATES (Rs./Qtl)													
Standard Descriptions with Basic Grade & Staple in Millimetres based on Upper Half Mean Length [By law 66 (A) (a) (4)]								Spot Rate (Upcountry) 2021-22 Crop October 2022					
Sr. No.	Growth	Grade Standard	Grade	Staple	Micronaire	Gravimetric Trash	Strength /GPT	3rd	4th	5th	6th	7th	8th
1	P/H/R	ICS-101	Fine	Below 22mm	5.0 – 7.0	4%	15	-	-	-	-	-	-
2	P/H/R (SG)	ICS-201	Fine	Below 22mm	5.0 – 7.0	4.5%	15	-	-	-	-	-	-
3	GUJ	ICS-102	Fine	22mm	4.0 – 6.0	13%	20	14060 (50000)	14060 (50000)	H	14060 (50000)	13919 (49500)	13919 (49500)
4	KAR	ICS-103	Fine	23mm	4.0 – 5.5	4.5%	21	16169 (57500)	16310 (58000)		16310 (58000)	16225 (57700)	16225 (57700)
5	M/M (P)	ICS-104	Fine	23mm	4.5 – 7.0	4%	22	19712 (70100)	19712 (70100)		19712 (70100)	19712 (70100)	19712 (70100)
6	P/H/R(U) (SG)	ICS-202	Fine	27mm	3.5 – 4.9	4.5%	26	-	-	O	-	-	-
7	M/M(P)/SA/TL	ICS-105	Fine	26mm	3.0 – 3.4	4%	25	17013 (60500)	17013 (60500)		17013 (60500)	17013 (60500)	17013 (60500)
8	P/H/R(U)	ICS-105	Fine	27mm	3.5 – 4.9	4%	26	-	-		-	-	-
9	M/M(P)/SA/TL/G	ICS-105	Fine	27mm	3.0 – 3.4	4%	25	17575 (62500)	17575 (62500)	L	17575 (62500)	17575 (62500)	17575 (62500)
10	M/M(P)/SA/TL	ICS-105	Fine	27mm	3.5 – 4.9	3.5%	26	18278 (65000)	18278 (65000)		18278 (65000)	18278 (65000)	18278 (65000)
11	P/H/R(U)	ICS-105	Fine	28mm	3.5 – 4.9	4%	27	-	-		-	-	-
12	M/M(P)	ICS-105	Fine	28mm	3.7 – 4.5	3.5%	27	18559 (66000)	18559 (66000)		18981 (67500)	18981 (67500)	19122 (68000)
13	SA/TL/K	ICS-105	Fine	28mm	3.7 – 4.5	3.5%	27	18615 (66200)	18615 (66200)	I	19037 (67700)	19037 (67700)	19178 (68200)
14	GUJ	ICS-105	Fine	28mm	3.7 – 4.5	3%	27	18700 (66500)	18700 (66500)		18981 (67500)	18981 (67500)	19122 (68000)
15	R(L)	ICS-105	Fine	29mm	3.7 – 4.5	3.5%	28	-	-		-	-	-
16	M/M(P)	ICS-105	Fine	29mm	3.7 – 4.5	3.5%	28	-	-	D	-	-	-
17	SA/TL/K	ICS-105	Fine	29mm	3.7 – 4.5	3%	28	-	-		-	-	-
18	GUJ	ICS-105	Fine	29mm	3.7 – 4.5	3%	28	-	-		-	-	-
19	M/M(P)	ICS-105	Fine	30mm	3.7 – 4.5	3.5%	29	-	-	A	-	-	-
20	SA/TL/K/O	ICS-105	Fine	30mm	3.7 – 4.5	3%	29	-	-		-	-	-
21	M/M(P)	ICS-105	Fine	31mm	3.7 – 4.5	3%	30	N.A. (N.A.)	N.A. (N.A.)		N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)
22	SA/TL/K / TN/O	ICS-105	Fine	31mm	3.7 – 4.5	3%	30	N.A. (N.A.)	N.A. (N.A.)		N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)
23	SA/TL/K/ TN/O	ICS-106	Fine	32mm	3.5 – 4.2	3%	31	N.A. (N.A.)	N.A. (N.A.)	Y	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)
24	M/M(P)	ICS-107	Fine	34mm	2.8 - 3.7	4%	33	21934 (78000)	21934 (78000)		21652 (77000)	21231 (75500)	21231 (75500)
25	K/TN	ICS-107	Fine	34mm	2.8 - 3.7	3.5%	34	-	-		-	-	-
26	M/M(P)	ICS-107	Fine	35mm	2.8 - 3.7	4%	35	23058 (82000)	23058 (82000)		22777 (81000)	22215 (79000)	22215 (79000)
27	K/TN	ICS-107	Fine	35mm	2.8 - 3.7	3.5%	35	-	-		-	-	-

(Note: Figures in bracket indicate prices in Rs./Candy)

UPCOUNTRY SPOT RATES (Rs./Qtl)													
Standard Descriptions with Basic Grade & Staple in Millimetres based on Upper Half Mean Length [By law 66 (A) (a) (4)]								Spot Rate (Upcountry) 2022-23 Crop October 2022					
Sr. No.	Growth	Grade Standard	Grade	Staple	Micronaire	Gravimetric Trash	Strength /GPT	3rd	4th	5th	6th	7th	8th
1	P/H/R	ICS-101	Fine	Below 22mm	5.0 – 7.0	4%	15	14285 (50800)	14426 (51300)		14426 (51300)	14510 (51600)	14510 (51600)
2	P/H/R (SG)	ICS-201	Fine	Below 22mm	5.0 – 7.0	4.5%	15	14482 (51500)	14622 (52000)	H	14622 (52000)	14707 (52300)	14707 (52300)
3	GUJ	ICS-102	Fine	22mm	4.0 – 6.0	13%	20	-	-		-	-	-
4	KAR	ICS-103	Fine	23mm	4.0 – 5.5	4.5%	21	-	-		-	-	-
5	M/M (P)	ICS-104	Fine	23mm	4.5 – 7.0	4%	22	-	-		-	-	-
6	P/H/R(U) (SG)	ICS-202	Fine	27mm	3.5 – 4.9	4.5%	26	18137 (64500)	18447 (65600)	O	18531 (65900)	18531 (65900)	18812 (66900)
7	M/M(P)/SA/TL	ICS-105	Fine	26mm	3.0 – 3.4	4%	25	-	-		-	-	-
8	P/H/R(U)	ICS-105	Fine	27mm	3.5 – 4.9	4%	26	18362 (65300)	18643 (66300)		18728 (66600)	18728 (66600)	19009 (67600)
9	M/M(P)/SA/TL/G	ICS-105	Fine	27mm	3.0 – 3.4	4%	25	-	-	L	-	-	-
10	M/M(P)/SA/TL	ICS-105	Fine	27mm	3.5 – 4.9	3.5%	26	-	-		-	-	-
11	P/H/R(U)	ICS-105	Fine	28mm	3.5 – 4.9	4%	27	18559 (66000)	18784 (66800)		18868 (67100)	18868 (67100)	19150 (68100)
12	M/M(P)	ICS-105	Fine	28mm	3.7 – 4.5	3.5%	27	-	-	I	-	-	-
13	SA/TL/K	ICS-105	Fine	28mm	3.7 – 4.5	3.5%	27	-	-		-	-	-
14	GUJ	ICS-105	Fine	28mm	3.7 – 4.5	3%	27	-	-		-	-	-
15	R(L)	ICS-105	Fine	29mm	3.7 – 4.5	3.5%	28	18531 (65900)	18531 (65900)	D	18840 (67000)	18981 (67500)	19262 (68500)
16	M/M(P)	ICS-105	Fine	29mm	3.7 – 4.5	3.5%	28	19543 (69500)	19543 (69500)		19825 (70500)	19825 (70500)	19965 (71000)
17	SA/TL/K	ICS-105	Fine	29mm	3.7 – 4.5	3%	28	19600 (69700)	19600 (69700)		19881 (70700)	19881 (70700)	20021 (71200)
18	GUJ	ICS-105	Fine	29mm	3.7 – 4.5	3%	28	19403 (69000)	19403 (69000)	A	19684 (70000)	19684 (70000)	19825 (70500)
19	M/M(P)	ICS-105	Fine	30mm	3.7 – 4.5	3.5%	29	19684 (70000)	19684 (70000)		19965 (71000)	19965 (71000)	20106 (71500)
20	SA/TL/K/O	ICS-105	Fine	30mm	3.7 – 4.5	3%	29	19768 (70300)	19768 (70300)		20049 (71300)	20049 (71300)	20190 (71800)
21	M/M(P)	ICS-105	Fine	31mm	3.7 – 4.5	3%	30	-	-	Y	-	-	-
22	SA/TL/K/TN/O	ICS-105	Fine	31mm	3.7 – 4.5	3%	30	-	-		-	-	-
23	SA/TL/K/TN/O	ICS-106	Fine	32mm	3.5 – 4.2	3%	31	-	-		-	-	-
24	M/M(P)	ICS-107	Fine	34mm	2.8 - 3.7	4%	33	-	-		-	-	-
25	K/TN	ICS-107	Fine	34mm	2.8 - 3.7	3.5%	34	23058 (82000)	23058 (82000)		22637 (80500)	22074 (78500)	22074 (78500)
26	M/M(P)	ICS-107	Fine	35mm	2.8 - 3.7	4%	35	-	-		-	-	-
27	K/TN	ICS-107	Fine	35mm	2.8 - 3.7	3.5%	35	23761 (84500)	23761 (84500)		23340 (83000)	22777 (81000)	22777 (81000)

(Note: Figures in bracket indicate prices in Rs./Candy)