

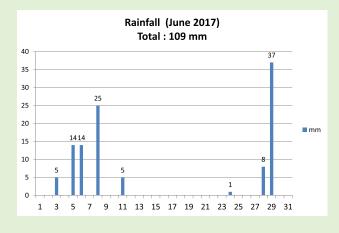
## **COTAAP** Corner

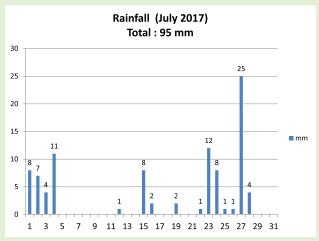
**Events for July- August 2017** 

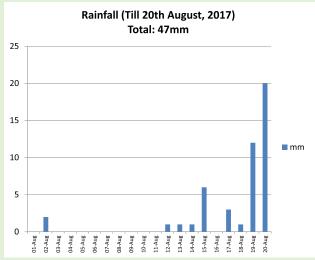
#### **Crop Condition:**

In spite of a good beginning to the monsoon, the long dry spells (see the rainfall graph below) affected all the crops, and rain-fed cotton particularly could not achieve normal growth. In regards to irrigated cotton, availability of abundant sunlight kept the crop free from diseases and pest. The Chopda

region received a total of 251 mm of rainfall (109 mm in June, 95 mm in July and 47mm in August) till date. Further rain in August would prove crucial for overall growth of cotton. COTAAP provided weather alert to farmers, which helped them take informed decisions on agriculture practices like spraying, fertigation, weeding, etc.









## Some of the important activities conducted by COTAAP, Chopda.

#### **Distribution of Critical Inputs:**

For demonstration of improved technologies in cotton production, critical inputs are decided by COTAAP team of scientists. According to climatic and field conditions, selected inputs are distributed in phases. Distribution of two phases at the doorstep of beneficiary farmers was completed by the end of July 2017 and third phase in August. Farmers are provided with literature with information regarding name of the input, active ingredient, its benefits and instructions for using. Individual instructions are also given by COTAAP Field Assistants.

Lot of Inputs

Lot of Hiputs	
First Lot	Imidacloprid
	Humic
	19:19:19
Second Lot	Thiomethoxam
	12:61:00
	Amino Gold
Third Lot	Azadirachtin (Neem extract)
	Mgso4
	ZnSo4



Shri. Raosaheb Patil distributes inputs at Dhupe village

## Participation of COTAAP in 'Textiles India 2017':

It was great opportunity for COTAAP to participate in 'Textiles India 2017' organised at Gandhinagar, Gujarat. COTAAP extension activity in cotton was displayed at the stall. A number of visitors from India and abroad appreciated the activities.



COTAAP stall at "Textiles India 2017" in Gandhinagar.

#### Pink Bollworm Research Project:

In order to keep watch on outbreak of Pink bollworm, an innovative project has been started this year. Five fields have been selected for demonstration of pink bollworm management with 'Integrated Pest Management' (IPM) technology. An additional five fields have been selected as check plots. Regular observations are being taken by field assistants from these fields. The findings from this project will provide recommendations for pink bollworm management. Most importantly, the outbreak of the pest will be detected at the first stage itself and recommendations to contain the same can be given to all other farmers. The uniqueness of this project lies in the fact that the observations are made in the farmers fields and not under controlled conditions at some research centre. The research is guided by Dr. N.R. Patange, Entomologist, Central Research Station, Aurangabad. He was in Chopda on 23rd July 2017 to visit demonstration fields and to train the field staff.



Dr. Patange trains field staff in Pink Bollworm Research project

#### **Collection of Soil Samples:**

From last year, COTAAP Chopda, has initiated soil testing project in selected villages, especially focusing on villages with problematic soils. This year, Majrehol village was selected, wherein 139 samples were collected and sent for analysis. On getting the reports, soil scientist Dr. H. N. Ravankar will review the same and provide recommendations to the respective farmers with an aim to improve soil health sustainably. This will help the farmers avoid the indiscriminate use of chemical fertilizers and promotes the use of organic manures with bio fertilizers.

## COTAAP Technology Corner: Cotton Cultivation with Bamboo Staking

As a continuous effort of introducing the new and advance technology in cotton production, each year COTAAP reviews success stories across India and develops demo plots with help of progressive farmers to adopt such technology on one acre plot.

COTAAP Chopda, has adopted an innovative production technology "Cotton production by



Bamboo staking plot with paired row plantation system (8 x4x1 ft) at Adgaon village

bamboo staking". Developed by Shri. Amrutrao Deshmukh, it is popularly known as "Amrut Pattern" and gives excellent results with respect to increasing cotton yields and returns to farmers. This year COTAAP is implementing the bamboo staking project on five farm plots of Dr. Ravindra Wamanrao Nikam, Machla, Shri. Amabadas Narayan Patil, Adgaon, Shri. Abhijit Prakash Patil, Chahardi, Shri. Nitin Nandlal Chaudhary, Chunchale and Shri. Umesh Vishvanath Chudhary, Akulkheda:

#### The Concept of "Amrut Pattern"

Bamboo stakes are fixed in the paired row of cotton. Iron wire is tied over the head of cotton plants. Branches are tied with jute string and held upward from ground level. Fertigation through drip irrigation is recommended to fulfill nutritional demand of the crop. This technique ensures 25 to 40 % increase in the yield.

#### Advantages:

Bamboo staking in cotton branches ensures that the entire plant gets ample ventilation and exposure to sunlight. Better sunlight helps in better photosynthesis, better growth and yield. Staking helps in lower flower and fruit drop; but also helps to increase boll development and avoid fungal disease caused by soil contract on the leaves as well as bolls on lower branches. The paired row planting arrangement helps in better aeration leading to a healthy growth environment and makes intercultivation practices easy.

## Cultivation Practices adopted in Bamboo Staking Plot during the year 2016-17:

	e of Farmer : Dr. Ravino	dr 2010 17 . dra Waman Nikam
Villa		l. ChopdadistJalgaon
	ile Number : 9422745953	
	ated/Rainfed : Drip irriga	ition
Туре	e of Soil : Heavy Bla	ck Soil
Sr. No	. Particular	FLD Plot
1.	Area	0.5 Acre
2.	Variety Sown	RCH 659
3.	Sowing Date	13 th June 2016
4.	Spacing	5 X 2 ft.
5.	Plant population per acre	4356
6.	Fertilizer Doses	
	1st dose (23 June)	10:26:26 - 50 kg
		Urea - 15 kg
	Fertigation Schedule	
	30th June 2016	12:61:00 - 3 kg
		00:00:50 – 3 kg
	10 July 2016	MgSo4 – 5 kg
	10 july 2010	WDG sulphur - 2 kg
		13:40:13 – 3 kg
	21 July 2016	Phosphoric acid – 3 kg
	21 jaij 2010	Boron – 500 gms
	01 August 2016	00:52:34 – 4 kg
	011146451 2010	WDG Sulphur - 1 kg
		Ammo. Sulphate – 4 kg
	08 August 2016	Monozinc – 3 kg
	00 / lugust 2010	MgSo4 - 3 kg
	17 August 2016	00.52.34 - 4 kg
	17 / Hugust 2010	00:52:34 - 4 kg MOP - 15 kg
	30 August 2016	13:00:45 – 3 kg
	30 / lugust 2010	Ammo. Sulphate – 3 kg
	10 September 2016	13:00:45 - 3 kg
	10 September 2010	MgSo4 – 2 kg
		Amma Culphata 2 kg
	20 Capt 2016	Ammo. Sulphate – 3 kg 13:00:45 – 3 kg
	20 Sept 2016	MgSo4 - 2 kg
		Ammo. Sulphate – 3 kg
	11 Capt 2016	
	11 Sept 2016	13:00:45 – 3 kg
7	Correction achadula	Ammo. Sulphate – 3 kg
7.	Spraying schedule	Imidadanrid (100 ml)
	1st spray – 25th July 2016	Imidacloprid (100 ml) Sticker
	2nd apress 11th Assessed 201	
	2nd spray - 11th August 201	
	3rd enroy 22nd August 201	Amino Gold (500 ml)
	3rd spray – 22nd August 201	
		Flonicamid (30 gms)
		Fe + Mg (500 gm)
	4th C Eth Ct 20	Sticker
	4th Spray – 5th September 20	
		Imidacloprid 76 % (50 gms)
		Carbendazim – 250 gms
	5th Corrors 16th Contamil - 20	Sticker
	5th Spray – 16th September 20	016 Bactokill
		COC - 300 gms
		Monochrotophos – 250 ml
		Thiomethoxam – 100 gms
	6th Course 20 Contamilian 20	Sticker
	6th Spray – 28 September 201	
		Sticker

#### Cost to Benefit Ratio (Technological) Obtained:

Cost to benefit Katio (Technological) Obtained.														
	Cotton Production Technology by Bamboo Staking (2016-17)													
	Farmer Name: Dr. Ravindra Nikam, Chopda													
Type of FLD		Demo. Check							Demo.	Check		_		
	No. of Demons.	Yield (kg. cotton/ ha.)	Yield (kg. lint/ ha.)	Cash return Rs.	Yield (kg. cotton/ ha.)	Yield (kg. lint/ ha.)	Cash return Rs.	% increase in Yield	Average rate/kg.	Increase in Returns Rs.	Cost culti. (Rs./ ha.)	Cost culti. (Rs./ ha.)	Increase in cost Rs.	Demo B : C ratio
Bamboo Staking	1	4250	1487.5	233750	3000	1050	165000	41.7	55	68750	150505	123555	26950	2.55

Average Ginning	35%
Average rates	Rs. 55/kg lint

Normal C : B								
Demo	Check							
1.55	1.34							

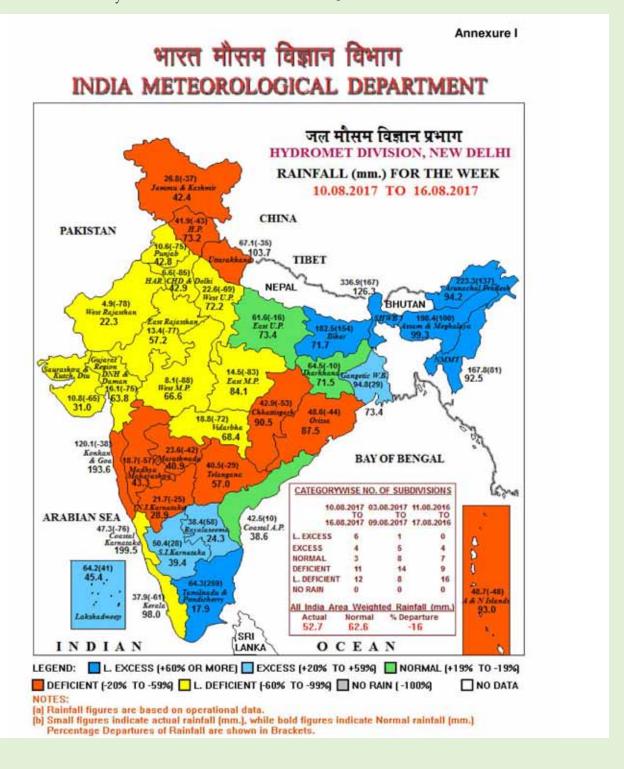
Note: Cost of cultivation in demo plot is increased due to use of bamboo, wire and jute string. These inputs can be reused. This was first trial in the region. By experience and use of appropriate technology, yield can be increased in coming years. Farmer is technically sound and has experiemnted on half an acre of plot. The numbers are calculated for per hectare basis accordingly

# Excerpts from India Meteorological Department's Weather Report of August 17, 2017

#### Forecast for next two week

#### Rainfall/snowfall:

• An upper Air cyclonic circulation lies over north Bay of Bengal, under its influence a low pressure area likely to develop during next 48 hours. Due to its likely westwards movement East Madhya Pradesh, Jharkhand, Odisha, Gangetic West Bengal, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Telangana is very likely to receive fairly widespread to widespread rainfall activity during the 1st week (17 to 23 August) with isolated heavy to very heavy falls during first half of the 1st week.



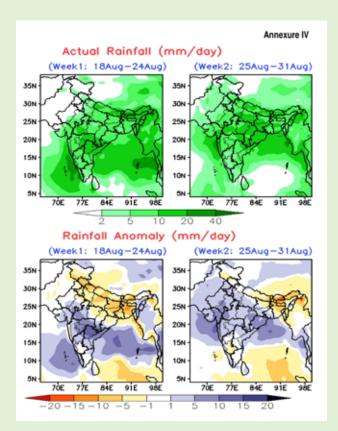
- Fairly widespread to widespread rainfall activity with isolated heavy falls is also likely to occur over, Gujarat & East Rajasthan during second half of the 1st week.
- Fairly widespread to widespread rainfall activity with isolated heavy falls is likely to

occur over Konkan & Goa, Karnataka, Kerala, and Lakshadweep during many days of the 1st week.

• Fairly widespread to widespread rainfall activity with isolated heavy falls is also likely to occur over Uttarakhand, Assam & Meghalaya

#### Annexure III

	EOROLOGICAL SUB-DIVISION	17	18	19	20	21	22	23
Sr. No	MET.SUB-DIVISIONS	AUG	AUG		AUG	AUG	AUG	AUG
1	ANDAMAN & NICO.ISLANDS	ws*	ws*	ws*	ws*	ws	FWS*	SCT
2	ARUNACHAL PRADESH	SCT	SCT	FWS	SCT	SCT	FWS	FWS
3	ASSAM & MEGHALAYA	FWS	FWS	FWS*	FWS*	FWS	FWS	FWS
4	NAGA.MANI.MIZO.& TRIPURA	FWS	FWS'	FWS*	FWS*	FWS	ws	ws
5	SUB-HIM.W. BENG. & SIKKIM	FWS	FWS	FWS	FWS	FWS	ws	ws
6	GANGETIC WEST BENGAL	ws*	ws	FWS	SCT	SCT	FWS	FWS
7	ODISHA	ws"	ws"	ws	FWS	FWS	FWS	FWS
8	JHARKHAND	FWS*	ws*	FWS	FWS	FWS	FWS	FWS
9	BIHAR	FWS	SCT	SCT	SCT	SCT	FWS	FWS
10	EAST UTTAR PRADESH	ISOL	SCT*	SCT	SCT	SCT	FWS	FWS
11	WEST UTTAR PRADESH	ISOL	ISOL	SCT <sup>TS</sup>	SCT	SCT	FWS	FWS
12	UTTARAKHAND	SCT	FWS	ws*	ws	ws	ws	ws
13	HARYANA CHD. & DELHI	ISOL	ISOL	s SCTTS	SCT	SCT	FWS	FWS
14	PUNJAB	ISOL	ISOL		SCT	SCT	SCT	SCT
15	HIMACHAL PRADESH	ISOL	ISOL		SCT	SCT	FWS	FWS
16	JAMMU & KASHMIR	ISOL	ISOL	SCT	SCT	SCT	ISOL	ISOL
17	WEST RAJASTHAN	DRY	DRY	ISOL	ISOL	ISOL	SCT	FWS
18	EAST RAJASTHAN	ISOL	ISOL	SCT	FWS*	FWS	FWS	FWS
19	WEST MADHYA PRADESH	ISOL	SCT	ws	ws*	FWS*	ws	ws
20	EAST MADHYA PRADESH	SCT	FWS		FWS*	FWS	ws	ws
21	GUJARAT REGION D.D. & N.H.	ISOL	ISOL				ws*	ws
22	SAURASTRA KUTCH & DIU	ISOL	ISOL		SCT	ws'	FWS*	FWS
23	KONKAN & GOA	ws	ws*	ws"	ws"	ws	ws	ws
		-	FWS			FWS	SCT	
24	MADHYA MAHARASHTRA	SCT			FWS	FWS		FWS
25	MARATHAWADA	SCT	FWS	_	FWS		FWS	FWS
26	VIDARBHA	SCT	FWS*		ws*	FWS	FWS	WS
27	CHHATTISGARH	FWS*	FWS		SCT	SCT	FWS	FWS
28	COASTAL ANDHRA PRADESH	FWS*	FWS	_	FWS	FWS	FWS	ws
29	TELANGANA	FWS	ws		FWS*	FWS	FWS	FWS
30	RAYALASEEMA	FWS	SCT	SCT	ISOL	SCT	SCT	FWS
31	TAMILNADU & PUDUCHERRY	SCT	SCT	ISOL	ISOL	SCT	SCT	FWS
32	COASTAL KARNATAKA	ws*	ws*	ws"	ws*	ws*	ws	FWS
DRY	NORTH INT.KARNATAKA	FWS	FWS		ws*	FWS	SCT	SCT
34	SOUTH INT.KARNATAKA	FWS	FWS		FWS	FWS	SCT	FWS
35	KERALA LAKSHADWEEP	WS EWe*	WS*	WS*	WS*	WS*	FWS	FWS
36 LEGENDS		FWS*	ws*	ws	ws	ws	ws	ws
ws	WIDE SPREAD / MOST PLACES (76-100)	%)	FWS	FAIRLY WIDE SPI	READ / MANY I	PLACES (51%	to 75%)	
SCT	SCATTERED / FEW PLACES (26% to 50%	,	ISOL	ISOLATED (up to			STATION REPORT	ED RAINFALL
*Heavy I	Rainfall (64.5-115.5 mm) Heavy to	Very Heavy R	ainfall (115	.6-204.4 mm)	Extren	nely Heavy Ra	infall (204.5 m	m or more)
* FOG	* SNOWFALL # HAILSTO			HEAT WAVE			VERE HEAT WA	
\$ THUNG	DER SQUALL DS/TS DUST/THUNDER	STORM	-	COLD WAVE		I- SE	VERE COLD WA	AVE



and Nagaland, Manipur, Mizoram & Tripura during the 1st week.

- Fairly widespread rainfall activity is also likely to occur over Madhya Maharashtra & Marathwada during many days of the week.
- Isolated to scattered rainfall activity is likely to occur over remaining parts of the country during 1st week.
- Overall, during 1st week, rainfall activity is likely to above normal over south Peninsular India and adjoining central & east India. Overall rainfall activity is likely to be normal over India as a whole (Annexure IV).
- During 2nd week (24 to 30 August), rainfall activity is likely to normal to above normal over most parts of the country outside northeastern states. Overall rainfall activity is likely to be above normal over India as a whole during 2nd week (Annexure IV).

#### Rainfall Distribution (01.06.2017 to 19.08.2017)

Sr.			Day 19.	08.2017		Period 01.06.2017 to 19.08.2017				
No.	State	Actual (mm)	Normal (mm)	% Dep.	Cat.	Actual (mm)	Normal (mm)	% Dep.	Cat.	
1	Punjab	1.2	5.4	-78%	LD	286.0	352.1	-19%	N	
2	Haryana	2.2	6.3	-66%	LD	234.5	320.6	-27%	D	
3	West Rajasthan	0.0	2.9	-100%	NR	313.3	192.2	63%	LE	
	East Rajasthan	0.2	7.2	-98%	LD	440.5	437.3	1%	N	
4	Gujarat	0.2	5.6	-96%	LD	603.9	493.0	22%	E	
	Saurashtra & Kutch	0.0	4.1	-99%	LD	465.5	360.1	29%	E	
5	Maharashtra	13.2	7.7	72%	LE	622.9	730.4	-15%	N	
	Madhya Maharashtra	2.4	5.0	-52%	D	509.6	514.3	-1%	N	
	Marathwada	2.9	5.1	-43%	D	300.1	439.7	-32%	D	
	Vidarbha	32.6	8.2	297%	LE	487.1	680.3	-28%	D	
6	West Madhya Pradesh	12.6	11.4	10%	N	465.4	598.2	-22%	D	
	East Madhya Pradesh	9.7	11.9	-19%	N	563.6	730.2	-23%	D	
7	Telangana	13.5	6.6	104%	LE	434.8	513.9	-15%	N	
8	Coastal Andhra Pradesh	13.3	4.4	203%	LE	415.0	358.0	16%	N	
	Rayalseema	3.8	2.3	65%	LE	221.9	221.9	0%	N	
9	Coastal Karnataka	28.8	23.0	25%	E	1924.6	2565.9	-25%	D	
	N.I. Karnataka	2.8	2.8	1%	N	251.2	314.8	-20%	D	
	S.I. Karnataka	5.9	5.0	18%	N	335.7	468.1	-28%	D	
10	Tamil Nadu & Pondicherry	7.1	2.9	145%	LE	218.2	160.5	36%	Е	
11	Orissa	17.2	13.0	33%	Е	752.1	786.9	-4%	N	

L. Excess, Excess, Normal, Deficient, L. Deficient

Source: India Meteorological Department, Hydromet Division, New Delhi

Source : Office of the Textile Commissioner

### **Production of Fibres**

(In Mn. Kg)

Production of Fibres (In Mn. Kg										
As on	Raw Cotton		Synthetic		Cellulosic	Sub Total				
	(OctSept.)	PSF	ASF	PPSF	VSF					
2010-11	5765	896.33	79.48	3.74	305.10	1284.65				
2011-12	6239	829.74	77.71	4.08	322.64	1234.17				
2012-13	6290	848.05	73.59	4.26	337.49	1263.39				
2013-14	6766	845.95	96.12	3.71	361.02	1306.80				
2014-15	6562	881.56	92.54	4.62	365.17	1343.89				
2015-16	5746	893.95	106.81	4.70	341.91	1347.37				
2016-17 (P)		898.97	96.37	3.64	364.99	1363.97				
2017-18 (P) (AprMay)		148.13	15.40	0.58	60.10	224.21				
		20	15-16							
April		73.62	9.45	0.35	28.62	112.03				
May		75.55	9.50	0.30	18.42	103.77				
June		67.17	7.88	0.31	19.50	94.86				
July		70.75	9.15	0.40	29.70	110.00				
August		74.07	9.35	0.47	30.63	114.52				
September		74.24	7.95	0.46	30.42	113.07				
October		76.66	9.23	0.38	31.34	117.61				
November		74.98	8.15	0.30	30.72	114.15				
December		76.65	9.36	0.45	31.49	117.95				
January		79.10	9.40	0.46	31.33	120.29				
February		73.52	8.58	0.42	28.07	110.59				
March		77.64	8.81	0.41	31.67	118.53				
		201	6-17 (P)		'					
April		73.56	8.86	0.37	30.32	113.11				
May		77.07	9.39	0.44	31.72	118.62				
June		77.46	9.28	0.45	21.87	109.06				
July		79.32	8.07	0.30	30.41	118.10				
August		79.92	8.20	0.35	31.96	120.43				
September		76.96	9.02	0.22	31.14	117.34				
October		79.51	6.75	0.16	32.46	118.88				
November		71.06	7.10	0.24	31.18	109.58				
December		71.65	7.28	0.29	32.09	111.31				
January		72.68	7.78	0.20	32.11	112.77				
February		63.78	7.42	0.20	28.24	99.64				
March		76.00	7.22	0.42	31.49	115.13				
		201	7-18 (P)							
April		72.23	7.63	0.26	30.51	110.63				
May		75.90	7.77	0.32	29.59	113.58				

				UPC	OUNTRY	SPOT R	ATES				(R	ls./Qtl)
	Standard in Millime	Spot Rate (Upcountry) 2016-17 Crop AUGUST 2017										
Sr. No.	Growth	Grade Standard	Grade	Staple	Micronaire	Strength /GPT	14th	15th	16th	17th	18th	19th
1	P/H/R	ICS-101	Fine	Below 22mm	5.0-7.0	15	9983 (35500)	Н	9983 (35500)	9983 (35500)	9954 (35400)	9814 (34900)
2	P/H/R	ICS-201	Fine	Below 22mm	5.0-7.0	15	10236 (36400)		10236 (36400)	10236 (36400)	10236 (36400)	10095 (35900)
3	GUJ	ICS-102	Fine	22mm	4.0-6.0	20	8127 (28900)		8127 (28900)	8099 (28800)	8099 (28800)	8099 (28800)
4	KAR	ICS-103	Fine	23mm	4.0-5.5	21	9420 (33500)	0	9420 (33500)	9392 (33400)	9392 (33400)	9392 (33400)
5	M/M	ICS-104	Fine	24mm	4.0-5.0	23	10461 (37200)		10461 (37200)	10432 (37100)	10432 (37100)	10432 (37100)
6	P/H/R	ICS-202	Fine	26mm	3.5-4.9	26	11895 (42300)	L	11838 (42100)	11754 (41800)	11726 (41700)	11642 (41400)
7	M/M/A	ICS-105	Fine	26mm	3.0-3.4	25	9786 (34800)		9786 (34800)	9786 (34800)	9786 (34800)	9786 (34800)
8	M/M/A	ICS-105	Fine	26mm	3.5-4.9	25	10376 (36900)		10376 (36900)	10348 (36800)	10348 (36800)	10348 (36800)
9	P/H/R	ICS-105	Fine	27mm	3.5.4.9	26	12063 (42900)	I	12007 (42700)	11923 (42400)	11895 (42300)	11810 (42000)
10	M/M/A	ICS-105	Fine	27mm	3.0-3.4	26	10517 (37400)		10517 (37400)	10404 (37000)	10404 (37000)	10404 (37000)
11	M/M/A	ICS-105	Fine	27mm	3.5-4.9	26	11023 (39200)	D	11023 (39200)	10911 (38800)	10911 (38800)	10911 (38800)
12	P/H/R	ICS-105	Fine	28mm	3.5-4.9	27	12148 (43200)		12092 (43000)	12007 (42700)	11979 (42600)	11895 (42300)
13	M/M/A	ICS-105	Fine	28mm	3.5-4.9	27	11557 (41100)		11557 (41100)	11529 (41000)	11529 (41000)	11529 (41000)
14	GUJ	ICS-105	Fine	28mm	3.5-4.9	27	11557 (41100)	A	11557 (41100)	11501 (40900)	11529 (41000)	11529 (41000)
15	M/M/A/K	ICS-105	Fine	29mm	3.5-4.9	28	11951 (42500)		11951 (42500)	11923 (42400)	11923 (42400)	11923 (42400)
16	GUJ	ICS-105	Fine	29mm	3.5-4.9	28	11923 (42400)	Y	11923 (42400)	11867 (42200)	11867 (42200)	11867 (42200)
17	M/M/A/K	ICS-105	Fine	30mm	3.5-4.9	29	12148 (43200)		12148 (43200)	12120 (43100)	12120 (43100)	12120 (43100)
18	M/M/A/K/T/O	ICS-105	Fine	31mm	3.5-4.9	30	12401 (44100)		12401 (44100)	12373 (44000)	12373 (44000)	12373 (44000)
19	A/K/T/O	ICS-106	Fine	32mm	3.5-4.9	31	12879 (45800)		12879 (45800)	12851 (45700)	12851 (45700)	12851 (45700)
20	M(P)/K/T	ICS-107	Fine	34mm	3.0-3.8	33	14904 (53000)		14904 (53000)	14904	14904 (53000)	14904 (53000)

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