

## FORM GI - 1

Received Rs. 5000 in cash/  
Cheque/DD/MO on 1.08.08  
vide entry no. 0324 in the  
register of valuables  
Cashier

**THE GEOGRAPHICAL INDICATIONS OF GOODS  
(REGISTRATION AND PROTECTION) ACT, 1999**

DD 008  
01/08/08

**(Filed in triplicate alongwith the Statement of Case accompanied by five additional representations of the Geographical Indication)**

**Section 11 (1), rule 23 (2)**

Fee Rs. 5,000/- (as per entry no. 1-A of the First Schedule)

## BYDAGI CHILLI

**A & B) NAME AND ADDRESS OF APPLICANT/ASSOCIATION:**

**SPICES BOARD**  
(Ministry of commerce and Industry,  
Government of India),  
Sugandha Bhavan,  
N.H.By-pass  
P.B.No.2277  
Palarivattom P.O.  
Cochin - 682 025, India  
Website: [www.indianspices.com](http://www.indianspices.com)  
Email: [spicesboard@vsnl.com](mailto:spicesboard@vsnl.com)

**C) LIST OF ASSOCIATION OF PERSONS/ PRODUCERS/ ORGANISATION/  
AUTHORITY:**

To be furnished soon.

**D) TYPE OF GOODS/ CLASS:**

Chillies being spices falling in class - 30

**E) SPECIFICATION:**

1. Grown only in Karnataka, near Bydagi region
2. Grown on black cotton soil with pH value of 5.4-6.8
3. Known for high colour value-1,50,000 - 2,50,000 CU
4. Not pungent, even sweet smelling at times.
5. Have wrinkles on pods.

**F) NAME OF THE GEOGRAPHICAL INDICATION:**

## BYDAGI CHILLI

### G) DESCRIPTION OF GOODS:

**Bydagi Chilli** is a famous variety of chilli mainly grown in Karnataka. Named after the town Bydagi which is located in the Haveri district of Karnataka, this chilli is known for its deep red colour and got the highest colour value of 1,50,000 – 2,50,000 CU. It is not very pungent and is used in many food preparations in India. This chilli is characterized by wrinkles on the pods, low pungency and sweet flavour.

There are several types of Bydagi chilli. The two main types are **The Bydagi Kaddi and Bydagi Dabbi**

The **Bydagi Kaddi** has a length of 10 to 15 cms, with negligible pungency. It is slender, linear, light green in colour and at maturity turns to deep red colour developing the characteristic wrinkles at the ripening stage. This variety possesses the highest colour value and is suitable under rain fed conditions. It has its calyx covering its Pod, and is reasonably resistant to pests and diseases.

The **Dyavanur Dabbi** is another variant of Bydagi Dabbi type and suitable for green chilli and dry chilli purpose. The fruits are of medium length (8 to 10 cms.), a little curved at the apex, and slightly bulged at the base of the calyx. This variety is more susceptible to pests and diseases. The quality parameters for the Dabbi Chilli are on the same lines as the Bydagi Kaddi.

The **Dyavanur Delux** is a variant of recent origin of Bydagi Dabbi and might have been selected from Dyavanur Dabbi. The fruits are similar to Dyavanur dabbi but the size of the fruit is a little bigger and more bulged at the calyx. The fruit length ranges from 10 to 12 cms, the fruits are light green in colour and turn to an attractive shiny deep red colour on maturity. On complete drying, this variety also develops wrinkled surface on the fruit. At present fruits of this variety are most in demand in the markets.

Noolvi Dabbi, Kubhsi Dabbi, Antur Bentur Dabbi types are some of the variants which are similar in their quality parameters including pungency and colour values and widely grown in this region.



[Pic. 1]

The Bydagi chilli plant grows to a height of 1m. with a spread of 1m. Leaves are thin and light green in colour. It is a branching type. Fruits attain deep red colour on maturity and develop wrinkles on the surface (as seen in the Pic.1). The average Bydagi chilli fruits are 12 – 15 cms. long and thin but not very pungent.

**The Bydagi Chilli** belongs to the genus *Capsicum* under *Solanaceae* family, and Species *Capsicum annum*. Older Horticultural classification grouped *Capsicum annum* into four groups depending upon the shape of the fruits. Of these the Bydagi kaddi belongs to the variety *Capsicum annum* Linn var.*acuminatum* Fing , which is cultivated and constitutes the principal source of dry chillies of commerce. The fruits are bright red colour, slender and thinwalled cultivars.

#### H) GEOGRAPHICAL AREA OF PRODUCTION AND MAP:

**Soil:** Bydagi chilly is mainly grown in Black Cotton soil having pH value of 5.4-6.8

**Geographical conditions in areas where Bydagi chilly is grown;**

Latitude	Longitude	Altitude	Temp. range	Rainfall	Humidity
14° 48`N to 15° 25`N	75° 24`E To 75° 42`E	500 to 700 m. Above sea level	20 to 28° C	500 to 800mm	65 to 95%

Bydagi Chilli is extensively cultivated in the transition belt of Dharwad, Haveri, Bellary, Raichur, Belgaum, Bagalkot, Shimoga Chitradurga and Gadag, districts of Karnataka.

It is grown in Dharwad, Gadag, Haveri and Chitradurga districts in rain-fed condition. In Bellary, Raichur, Belgaum and Bagalkot districts it is grown under irrigation. Among the districts of Karnataka, Dharwad has the maximum acreage.

Map enclosed herewith identifies these regions.

While it is challenging to procure the above geographical details in all the districts where Bydagi chilli is grown, attempt is being made to this effect.

#### **D) PROOF OF ORIGIN:**

**Bydagi is** a small town and a Taluk head quarter in Haveri district of Karnataka state. It is 90 km. away from the famous industrial town Hubli and 6 km. interior from NH-4. The population of the town is about 30,000.

It is not clear when chilli cultivation began in Bydagi area. According to folk tales, chillies were being cultivated in this area about 200 years ago with much concentration around Bydagi town which was then the district head quarters under British rule and is now a Taluk in Haveri District of Karnataka.

Since the days of antiquity, Bydagi has been famous for Red chilli. The vast and extensive market yard is famous as the second largest Red Chilli dealing market in the country. Bydagi was also well known as a famous market centre for garlic, jaggery, turmeric and arecanut. With this agro commercial background, the town has been recognized as a large chilli trading centre in the country.

The main Bydagi chilli growing areas are Dharwad, Haveri, Gadag, Bellary, Gulbarga and Raichur districts. Farmers from the above Districts and even from Kurnool and Adoni districts from neighboring Andhra Pradesh bring their chilli to Bydagi market, though the Bydagi market is far away from the above mentioned places. Because of the well established and systematic business culture practiced there by which they are sure of getting fair price for their produce. Moreover, in this market there are prosperous merchants who conduct large chilli transactions, which is necessary to sustain the chilli trade. The commission agents here in the market are known for their honesty in weighing and their promptness in payment, which is really what attracts farmers from far off places.

## J) GEOGRAPHICAL REQUIREMENTS:

The Bydagi chilli crop requires a warm and humid climate during the growing period and dry weather during the period of maturation of fruits. In areas of low rainfall it can be grown as an irrigated crop.

Bydagi chilli can be grown in varied soil types but well drained loamy soils (black and red soils rich in potash having a pH of 6.5-7.5) are ideal soils. Acidic and alkaline soils are not suitable.

Bydagi Chilli can be grown in tropics and sub tropical regions receiving 500 – 800 m.m annual rainfall. The ideal temperature requirement is 20 – 25° C with warm humid conditions which improve the growth while dry conditions enhance maturity.

S. No.	Geo-climatic features	Data
1.	Soil -type	Well drained loamy soils –black or red soils, rich in potash
2.	Soil pH	pH of 6.5 to 7.5
3.	Average Temperature in region	20 to 28°C
4.	Humidity	Required during growth and dryness during maturation
5.	Rainfall	500 to 800 mm. annual rainfall

## K) METHOD OF PRODUCTION

### Pre Harvesting Techniques

i) **Seeds Collection** – It is interesting that many variants of the Bydagi Chilli are seen in a small Geographical area in and around the Bydagi region. It is believed that the farmers collected their own seeds from better genotypes among population and used for next generation. Mostly good seeds from previous year's product are obtained and preserved for sowing in the next season. This could be the secret of the superior unadulterated quality of the Bydagi chilli.

### ii) Preparation of field

The land for planting chillies is ploughed and harrowed 4 – 5 times to obtain a fine tilth. The preparation of land may be started about 2 months in advance of planting. Deep ploughing is done in the main field followed by harrowing.

The land is made into beds or ridges and furrows (as seen in the Pic.2). For rainfed crop, generally large beds separated by drainage channels are prepared

while for irrigated crops, smaller beds of 2 to 3 metres square or ridges and furrows at 45-50cms. apart are made.



Furrow irrigation  
in Karnataka

[Pic.2]

### iii) Manuring

About 25 tons of farm yard manure and 300 to 400 kg of oil cakes (groundnut or neem) per hectare may be incorporated into the soil during the last ploughing. Sheep penning is a common practice in transitional belt of Karnataka. The number of sheep penned is about 5 to 10 thousand per hectare for one or two nights. The droppings and urine excreted are immediately incorporated in the soil by harrowing. Farmers of this region are of the opinion that sheep penning is better than application of compost or farm yard manure. This may be because the urine excreted is rich in nitrogen and moreover and hence transportation costs for manure would be saved. This apart, growing green manure crops like cow pea, sun hemp, etc. and incorporating them after about 40 days growth with the early rains can be practiced advantageously wherever possible.

### iv) Sowing

Direct sowing takes place in rain fed regions during the period May to June.

**Drill sowing** – The farmers with large holdings usually adopt this method and the quantity of seed used is double the quantity of seed used for transplanting (2.5kg./ha). Sowing is achieved with the help of two bullocks on a well prepared land with row spacing. Thinning will be resorted to after one month.

The nursery has to be raised on well drained soils. After digging the soil to a depth of 25 to 30 cm. and bringing the soil to a fine tilth, well decomposed cattle

manure and compost at the rate of 10 to 15 kg. per sq. metre is added. Raised seed beds of 1m. width and convenient length with 30 cm. wide drainage channels in between are then formed. Seeds are sown uniformly or in lines over the beds, covered with a thin layer of soil or compost and then gently pressed. The beds are irrigated immediately after sowing seeds and at regular intervals afterwards. The seed beds may be given a drenching with copper based fungicides during the second and third weeks of sowing to check 'damping off seedlings'. A week prior to transplanting, the seedlings may be topped by nipping of the bud so as to promote development of lateral branches.

Successful production of chilli is basically conditioned by the superior quality of seeds planted. So, seeds should be collected from healthy plants and well developed fruits. It is better if first or second picked fruits are used for extraction of seeds.

**v). Transplanting**

Seedlings may be transplanted when 40-45 days growth on a well-prepared land. The optimum spacing for planting in the main field is 90 to 120 cm which is done by using markers. Spot application of FYM(Farm Yard Manure) before transplanting is being done wherever lines are intercrossed. 'Ridges and furrows system' is followed, and planting may be done in the furrows and the plants earthed up later. Transplanting may be done preferably on a cloudy evening. In the case of the irrigated crop, transplanting is done immediately after irrigation.

**vi). Fertilizers**

Recommended dosage of NPK (Nitrogen, Phosphorous & Potash) for rainfed crop is 100:50:50 and for irrigated crop is 150:75:75. The Bydagi chilli crop responds well to nitrogen and potash application rather than phosphorus application. Usually phosphorus and potash fertilizers are applied in one dose normally 15 days after transplanting while nitrogenous fertilizers are applied in two or three splits at 15 days after transplanting and a month after first application of fertilizers.

The fertilizer requirement of irrigated crop is higher than that of rain fed crop. Fertilizers are applied both as basal dose and top dressing. For a rain fed crop fertilizer at a dose of 60 kg. N, 30 kg P and 50 kg K per hectare may be applied as a basal dose. In the case of irrigated crop, a basal application of 60 kg P and 60 kg K per hectare may be given during the last ploughing. Depending upon the

region and soil type, about 120 – 150 kg N per hectare may be top-dressed in 3 – 6 split doses commencing from 30 days after planting at monthly or fortnightly intervals, half of K may be applied as top dressing during flowering depending upon the soil type.

**vii) Nutrition**

There is a practice of providing minimum nutrition to chilli crop in this area mainly because of large holdings and rainfed cultivation. The university recommends 25 tonnes of FYM/ha and 100:50:50kg NPK/ha with nitrogen in two equal splits for rain fed cultivation. However farmers adopt their own dosages viz., 1 bag of urea + 1 bag of potash OR 1 bag of DAP + 1 bag of Potash. However few farmers are in the habit of applying complex fertilizers. Only few progressive farmers apply a combination of urea, SSP and MOP in recommended proportions. Since the availability of organic waste and FYM is very scarce, farmers apply FYM as spot applications or they broadcast 1 to 2 tractor loads of FYM/ha which would be sufficient.

**viii). Weeding**

Since the chilli is being cultivated on black soils, very light harrowing is required. The common weeds found in this area are *Parthenium Amaranthus* sp, Wild *Ocimum* sp, *Cynodon* sp and *Cyprus* sp.

Majority of farmers keep their land 100% weed free which is achieved by repeated harrowing coupled with one or two hand weeding by their own family members. None of them is seen to use the weedicide for control of weeds in chilli plots.

As a result of repeated harrowing in black soils, the soil moisture regime is sufficiently maintained apart from achieving the weed free conditions. Top dressing followed by earthing up of the crop is also practiced when the crop is about 30 to 45 days old. During this period the seeds of marigold are broadcasted here and there with the aim of getting the flowers during Diwali and Dusshera festivals without knowing the beneficial effect of marigold as it acts as a "trap crop" to control fruit borers and nematodes in the soil.

**ix) Flowering**

The flowering of Bydagi chilli commences 40 days after transplanting with a peak flower production at 60 to 80 days after transplanting. Peak flower production in chilli is influenced by soil moisture, soil fertility and incidence of pest especially thrips and mites. In Bydagi cultivar there are two peaks of flowering at 50 and 70



days of transplanting. On an average, Bydagi cultivar produces about 200 flowers per plant.

**x). Rootsystem**

The root system of the Bydagi chilli plant is restricted to upper soil layer of 30 cm. depth. Application of organic manures and fertilizers enhances root activities. Root system of the chilli crop is highly branched with a tap root at the centre. Water stagnation is detrimental to chilli plants.

**xi). Mixed cropping system in chilli**

The economic condition of the farmer in this region is very poor as their main source of income is Agriculture, which is purely rainfed. To overcome the vagaries of environmental conditions over the years the farmers have adopted mixed cropping system. This is unique and has proved to be very sustainable and appreciated by eminent agriculturists of India and the world. This system includes taking up 2 to 3 crops on the same land at the same time and at different intervals and is known as 'mixed cropping'.

This system includes drill sowing of onion/garlic in four rows with a row spacing of 15 cms. apart, during the beginning of monsoon (1<sup>st</sup> fortnight of June). Every 5th line would be kept vacant. Chilli seedlings are transplanted at 60 cms apart in the 5<sup>th</sup> row during month of July. This makes a spacing of 75 X 60 cms. of chilli, which is ideal. Spot application of FYM and if possible chemical fertilizers are being supplied to chilli plants. However there is also a practice of broadcasting of FYM in the entire field prior to sowing of onion or garlic. Onion/garlic will be ready for harvest with 90 to 120 days period (Aug. to Sept). After the harvest of garlic/onion one or two interculture operations is done with the aim of achieving better soil tilth, earthing up the earlier planted chilli plants and to conserve soil moisture in a better way.

Further, seeds of Jaidhar cotton (short staple) are dibbled in between chilli rows which grow luxuriantly by using residual moisture and nutrients provided earlier apart from moisture from occasional rains during rabi season.

Red ripe chilli will be harvested during November-December period, by the time the cotton plants have grown fully and flowering begins, which will be harvested during January to February.

Thus the rotation of crop could be demonstrated as –

1. Pure Chilli, chilli + cotton and chilli + onion + cotton. However, in irrigated condition, chilli alone is cultivated.

This multicropping system provides the following advantages-

- Better moisture and nutrient availability from different layers of the soil (onion is shallow rooted and chilli is deep rooted).
- Better space harvest, because of different crop stature.
- Sustainable additional income to the farmers.

## xii). **Important Pests and Diseases**

**Pests-** Important pests noticed are **fruit borers** and sucking pests like **mites, thrips, aphids** . The farmers of this region very rarely take up control measures with pesticides. However few farmers use **carbaryl** or **malathion** or **monocrotophos** and **endosulphan** along with **neem** based pesticides, once or twice during the cropping season for control of pests.

**Diseases-** Most important and severe disease on chilli is “**murda complex**” locally called as **murda or mutturu roga** which means **leaf curling**. This disease is due to combined effect of several viruses and sucking pests like mites and thrips which help in transmitting the viruses. Typical symptoms are upward and/or downward curling of leaves, elongation of petiole, stunted growth, small leaves and in case of severity no flower or fruit production on the plant. Farmers usually notice this disease during fruit development stage or at later stages of the crop and hence damage is inevitable. Rarely few farmers take up control measures by spraying with **Kelthane** and uprooting of the infected plants. Sometimes the damage level goes up to the tune of 20 to 100%.

The other important diseases noticed are powdery mildew, leafspot and anthracnose. Due to improper pre-harvesting and post harvesting practices adopted by the farmers , anthracnose infection develops on fruits and leads to whitening of fruits which affects the quality and market price of the produce.

### xiii). Pollination

Flowering in Bydagi chilli commences after 40 days of transplanting with peak flower production at 60 – 80 days after transplantation. Flowers are bisexual and often cross pollinated by wind and insects.

The flower is solitary, and sometimes occurs in pairs. It is bisexual and hypogynous. Majority of the flowers open at 5 am. The stigma is receptive from a day earlier to anthesis (the period during which the flower is fully open and functional) and continues for 2 days after anthesis. The mean diameter of stigma is slightly greater than style. The pollen grains are fertile a day before anthesis with maximum fertility on the day of anthesis.

The Bydagi chilli plant is often cross pollinated and is visited by pollen carrying insects. Natural cross pollination may go upto 50% depending upon extent of style exertion, time of dehiscence of anthers, wind direction and insect population.

To maintain purity of chilli variety, a minimum isolation of 500 m. is considered safe. Caging the plants or bagging with perforated butter paper bag a side branch with unopened buds-these are some of the ways purity could be maintained.

### xiv) Harvesting and storage

The crop is ready for harvest in about four months. Harvesting season for Bydagi chillies starts from November to January. The fruits are plucked by hand in the ripe or nearly ripe stages along with the fruit stalks at regular intervals. The number of pickings varies from 6 – 10 spreading over a period of 3-4 months (as seen in the Pic.3). After harvest the fruits are **heaped** indoors for 1-2 days when partially ripe fruits, if any, **ripe fully** and the entire collection develops a uniform red colour. The fruits are then spread out on hard dry ground, sand or concrete floors for **drying** in the sun (as seen in the Pic.4). After two days of drying when the fruits are still flacid, they are **trampled upon or are rolled** over to flatten them which helps the packing later. After properly drying, the chillies are packed in 35 kg. gunny bags. Bydagi kaddi and Bydagi Dabbi and its variants with high colour value coupled with 10 to 11% moisture level gets premium price. The price ranges from Rs.5000 to 7000 per quintal. The price is usually decided through auction.



[Pic.3]



[Pic.4]

#### L) UNIQUENESS OF BYDAGI CHILLI:

1. Bydagi chilli have got the highest colour values of 150000 to 250000 CU and red in colour (156.9 ASTA colour units) and negligible (0.03%) in capsaicin
2. Fruits stand out by their deep red colour on maturity and wrinkles on the surface.
3. Fruits are 12-15 cms. long and thin but not too pungent and not spicy.
4. The plant grows to a height of 1m. with a spread of 1m. Leaves are thin and light green in colour.
5. The Bydagi chilli which belongs to the species *Capsicum annum*, which is most grown commercially and in which improvement in the crop is achieved largely by hybridization and selection within *Capsicum annum* itself.
6. Bydagi chilli is best grown in Tropical and subtropical regions, with annual rainfall of 500 to 800mm, temperature of 20 to 28°C, in well drained loamy soils (black and red soils rich in potash having a pH of 6.5-7.5) and with warm humid conditions

which favour the growth with dry conditions during maturity of the crop. These conditions subsist in the transition belt of North Karnataka districts.

The pesticide usage in Dharwad, Gadag and Haveri districts is very low being a rain fed crop in these places. Hence the produce from these areas is most preferred even though the yield is very low (200-500 kgs./acre or 500 – 1250 Kgs/hect.). In Bellary and Raichur districts a variant of Bydagi Kaddi and Dabbi locally known as Thumbs up is cultivated which gives medium colour (125000 to 160000 CU) and medium yield level i.e., 1000 kgs/acre or 2500 Kg/hect.. The pungency is negligible but use of Pesticide is very high being an irrigated crop.

#### **M) UTILITY VALUE**

Chilli forms an indispensable condiment in every household. Apart from imparting pungency and red colour to the dishes it is a rich source of vitamins and has medicinal properties. The pungency of chilli is due to the presence of capsaicin and the red colour due to carotenoid pigments such as capsanthin and capsorubin. As the demand for natural pigments is growing, the demand for chilli in the world market is bound to increase.

The fruits are picked when they turn bright red and are dried to retain the colour and reduce Microbial growth. Chilli is mainly consumed as ground spice powder in cuisine. The Bydagi chilli is also very useful for its colouring abilities. The oil extracted from the chilli called Oleoresin is being used in food industries, confectioneries, cosmetic industry, beverage industry for toning of fresh wine, meat industry, pharmaceutical industry, poultry and cattle feed industry and as a dye in textile industry. The demand for Bydagi chilli grown in this region of Karnataka has increased enormously due to the natural red colour in food industry which exports the chilli in the large quantity from India and used abroad as a substitute for paprika Oleoresin. The Oleoresin industry currently have tie up with traders for the procurement of the chilli for oleoresin manufacture. If the best quality product with high colour value is made viable through better practices, it will be a boon to the growers and traders. Ultimately it will be in the interest of the farmers that through the better post harvest practice, yield as well as the colour value of the chilli can be increased. The Bydagi chilli is found to have great prospects in the International market as the area and productivity is coming down in European countries and the demand for Paprika is increasing.

Of the total production of the chilli in the world 50% is produced in India. Out of which 70% of the production is used in India whereas 30% is exported. Srilanka, Bangladesh,

America, Europe, Nepal, Indonesia, Mexico are the nations which import chilli from India. In recent years China and Pakistan have been competing with India in the chilli business in the world market.

**N) Inspection:**

Spices Board has implemented the scheme of mandatory sampling and testing since October, 2003 for chillies and chilli products exported from India for Sudan dye and aflatoxin. Samples from all over India are collected by authorized sampling agencies/Spices Board officials and sent to Quality Evaluation Laboratory at Kochi. Samples will be analysed and analytical test reports are issued within 24 hours of sample reaching the laboratory.

**O) Spices Board's role in protection of Bydagi chilli growers**

Presently Spices Board is promoting the post harvest promotional programmes such as providing;

- (a). HDPE Polythene sheets are supplied to the farmers for hygienic drying of chillies,
- (b). Assisting in construction of chilli drying yards for hygienic drying of Bydagi chillies
- (c). Conducting post harvest quality improvement training programmes for farmers, traders and officers of Horticulture and Agriculture Departments.
- (d). The Spices Board is also implementing scheme for Organic cultivation of Bydagi chilli in 200ha.

Apart from the above programmes implemented, Board can take up development works of Bydagi chilli in the following ways-

1. By way of assisting the farmers for raising chilli nurseries,
2. Assisting the rural man power for establishing small scale chilli powdering units for value addition and employment generation in Bydagi chilli growing areas,
3. Assistance for irrigation

Spices Board is also undertaking the following promotional activities to boost export of spices including Byadagi chilli (which is mainly exported in the form of oleoresin as substitute to Paprika Oleoresin), which in turn help the farmers to get remunerative price for their produce.

- Adoption of Hi-tech processing
- Technology and Process Upgradation in processing units
- Upgrade/establish quality facilities/procedures
- Packaging development and Bar Coding
- Sending business samples abroad
- Trade promotion tours
- Brochure printing
- Participation in international fairs/seminars

#### **P) Production:**

In Karnataka, Bydagi chilli occupy an area of 1,60,000 ha. Covering Dharwad, Gadag, Haveri, Bellary, Shimoga and Bagalkote districts with the production of 82,000 tonnes. Out of this, 15000 ha used under irrigated condition in Bellary district having the production of 15000 tons by following intensive management practices. District wise details given below.

#### **District wise Area and Production of Bydagi Chilly in Karnataka**

<b>S.No.</b>	<b>Name of District</b>	<b>Area (Hect.)</b>	<b>Production (MT)</b>
1.	Dharwad	71000	47000
2.	Haveri	34000	20000
3.	Gadag	40000	20000
4.	Bellary	15000	15000

#### **Q) PACKING**

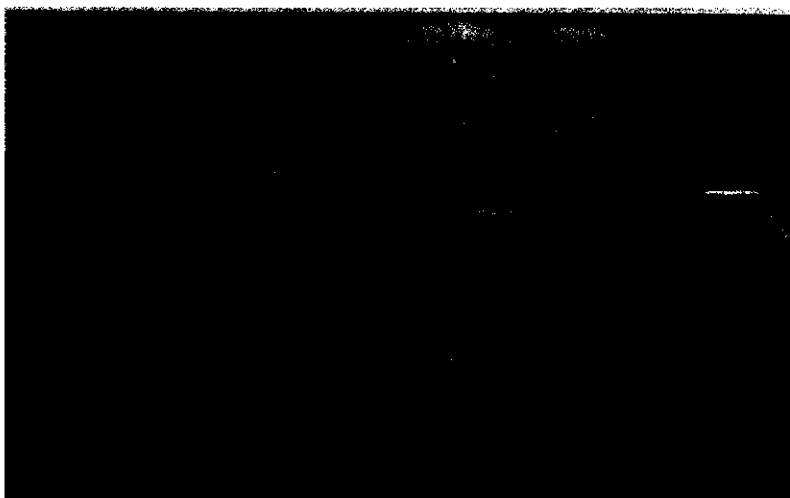
After harvest, the Bydagi chillies are adequately dried, trampled upon, flattened and packed in gunny bags . Few spice processing companies have their production units in Bydagi. From the Bydagi market alone an average of around 5 crores of Rupees has been collected by way of cess from chilli traders by APMC. The variants of Bydagi Kaddi and Bydagi Dabbi with higher colour value coupled with 10-11% moisture level

get the premium price. The price fluctuation is usually between Rs.5000 -7000 per quintal.

Pic. 5 to 8 show different post harvest stages of BYDAGI CHILLI before marketing.



[Pic.5]



[Pic.6]



[Pic.7]





[Pic.8]

## R) MAJOR MARKETING CENTRES

In Karnataka Bydagi chilli markets are located at Bydagi, Kundgol, Hubli, Dharwad, Ranibennur, Gadag, Hirekerur and Bellary, Annigeri, Haveri, Navalgund, Bagalkot, Belgaum, Gulbarga. Bydagi is one of the biggest dry chilli markets in Karnataka. Transaction at Bydagi itself accounted for 80000 tons valued at 400 crores of rupees.

## S). EXPORT

Bydagi chilli traders of Karnataka are mainly supplying Bydagi chilli to the leading exporters located at Cochin, Kerala and in turn, after value addition, products like Paprika Oleoresin is exported. Statement showing export of paprika oleoresin for the last 10 years from India is given below.

EXPORT OF PAPRIKA OLEORESIN FROM INDIA		
Year	Quantity	Value
	(Tonnes)	(Rs.Lakhs)
1998-99	732	7,867.29
1999-00	744	7,458.66
2000-01	1,149	13,916.67
2001-02	1,157	12,676.60
2002-03	1,306	13,290.01
2003-04	1,418	12,497.78

2004-05	2,074	19,738.90
2005-06	2,595	22,269.32
2006-07	2,058	17,665.98
2007-08	2,443	19,698.62



[Pic.9]



[Pic.10]

Pic.9 & 10 show interest of Americans and Europeans in BYDAGI CHILLI mainly for its **Oleoresin** content.

Details based on 2007-08 crop season on production, estimated consumption by the oleoresin industry, estimated exports, estimated domestic consumption and domestic price of Bydagi chilli are given below.

S No.	Details	Quantity
1.	Production of Bydagi chillies	82010MT
2.	Estimated consumption by the oleoresin industry	57000MT
3.	Estimated exports of Bydagi chillies	9000MT
4.	Estimated domestic consumption	16010MT
5.	Domestic price	Rs. 50 to Rs.70per kg.

### CONCLUSION:

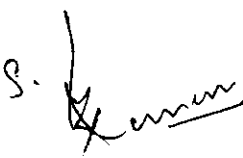
The yield of Bydagi chilli is very low (2 to 5 quintals per acre or 5 to 12.50 quintals/hect.) mainly due to rainfed cultivation, uneven distribution of rainfall, improper use of nutrients and plant protection measures, impure seeds and adoption of improper post harvest practices. However farmers still continue to grow this variety mainly because of their drought tolerant nature and suitability for mixed cropping systems, besides giving remunerative prices during bumper harvest seasons. Hence chilli farmers of this area need to be educated in scientific and organic ways of cultivation, post harvest handling and organization of farmers forum for getting better price and facilities from the concerned agencies.

1. All communication relating to this application may be sent to the following address in India;

**ANAND AND ANAND, ADVOCATES  
FLAT GA, NEW No.31, AR VILLA,  
THIRD MAIN ROAD, GANDHI NAGAR, ADYAR,  
CHENNAI - 600 020.**

2. In the case of an application from a convention country the following additional particulars shall also be furnished.

NOT APPLICABLE

S. 

SIGNATURE OF APPLICANT

**इ.स. कण्णन / S. Kannan  
डिरेक्टर (विपणन) / Director (Mktg.)  
स्पाइसेस बोर्ड / Spices Board  
भारत सरकार / Govt. of India  
कोच्चिन / Cochin 682 025**