

# Production Technology of Small Millets crops in MP



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# Soils of Small Millets Growing Area in M.P.



JNKVV, RARS  
Dindori

# Scientific Nomenclature

<b>Crops</b>	<b>Botanical name</b>
1. Kodo Millet (dksnks)	<i>Paspalum scrobiculatum</i> L.
2. Little Millet (dqVdh)	<i>Panicum sumentranse</i> Roth.
3. Finger Millet (jkxh)	<i>Eleusine coracana</i> L.
4. Barnyard Millet (lkaok)	<i>Echinochloa frumentacea</i> (Roxb.) Link.
5. Foxtail Millet (daxuh)	<i>Setaria italica</i> (L.) Beauv.
6. Proso Millet (phuk)	<i>Panicum miliaceum</i> L.

## *Area & Status*

In MP, these crops are grown in district Dindori, Mandla, Sidhi, Shahdol, Umaria, Anoopur, Betul, Chhindwara, Jabalpur, Balaghat, Satna, Narsinghpur, Hoshangabad, Rewa, Khandwa and Katni. The area under these crops during the period from 1980-81 to 2014-15 has come down from 13.84 lac ha to 2.01 lac ha. While, during this period the area in district Dindori & Mandla has declined from 1.38 lac ha to 0.47 lac ha, respectively.

# Background/Situation Analysis

- The changing scenario in the farming situation of small millet growing area, included uneven distribution, scanty and early withdrawal of rains which prompts the necessity to implement the project with a view to cope up with the adverse situation affecting productivity of small millet crops grown in the region.
- The aforesaid situation is getting bad to worse with reference to preceding years and need to be attended soon with possible remedial measures, that may be effective to combat the situations ,because ,the water stress is badly affecting the productivity in skeletal soils.

# Area Production and Productivity of small millets in MP

<b>Dindori &amp; Mandla Distt.</b>				<b>Madhya Pradesh</b>		
Year	Area (000ha)	Prod. (000ton)	Productivity	Area	Prod.	Productivity
1980-85	138.4	29.6	214	1338	255	193
1985-90	128.1	29.2	237	1197	292	243
1990-95	118.0	28.2	239	1156	287	248
1995-2000	109.9	29.40	267	763	200.6	263
2000-05	101.7	28.42	259	352	104	295
2005-10	89.4	21.96	301	288	89	309
2010-15	46.8	16.48	352	201	65	323

Although the area is decreasing, but the productivity increased due to impact and adoption of developed technology ( HYV and RDF). \* M.P. Ranks first among Kodo & little millets growing states \* Area 24.6% Production, 6.9% of the country

# District- wise area of Small millet in MP

Area (000 ha)	Districts
20-30	Dindori and Mandla
10-20	Sidhi and Shahdol
5-10	Chindwada and Seoni
1-5	Jabalpur, Balaghat, Umaria, Anoopur and Betul
0.5-1.0	Satna, Narsinghpur, Hoshangabad , Khandwa, Rewa and Katni.

# Area, Production and Productivity of Small Millets

	Area ( lac ha)			Production (lac tonne)			Productivity (Kg/ha)		
	1986-87	2000-01	2009-10	1986-87	2000-01	2009-10	1986-87	2000-01	2009-10
India	28.9	17.8	15.50	12.3	9.98	10.8	426	561	697
M.P.	11.97 (41.4%)	6.07 (34.1%)	3.06 (19.8%)	2.92 (23.7%)	1.72 (17.3%)	1.25 (15.7%)	243	286	408



# Reasons for decline in area

- (1) Absence of market of farmer produce.
- (2) Low market value of the farmers produce.
- (3) Exclusion of these food grain in minimum support price system of Government.
- (4) Switching over to other remunerative crops like, soybean and maize.
- (5) Low and uneconomic productivity of crops-being grown on neglected soils

# *Package of practices*

## 1. Rec High Yielding Varieties :-

Crop	Variety	Duration(Days)	Yield(q/ha)
Kodo Millet	JK-155	105	15-18
	JK-48	98	15-20
	JK-439	95	15-17
	DPS-9-1	95	20-22
	JK-41	110	12-15
	JK-137	99	20-25
	JK-13	100	15-18
	JK-65	100	15-20
	JK-98	100	15-20
Little Millet	JK-8	75	10-12
	JK-36	80	12-15
	JK-4	75	13-16

## Rec .High Yielding Varieties of Small Millets

Crop	Variety	Duration (Days)	Yield (q/ha)
Barnyard Millet (Sawa)	VL-207	100	28
	VL-172	94	25
Foxtail Millet (Kangni)	PS-4	82	18
	SiA 326	80	15
Finger Millet	VL-149	108	32
	GPU-67	105	28
	GPU-28	110	25

# Package of practices

*1. Seed treatment;*

With Thirum - 3 gm/kg seed

*2. Sowing time;*

Timely sowing - within 25th  
June - 15th July

*3. Seed rate*

Line sowing - 10 - 12 kg/ha  
Broad casting - 15 - 20 kg/ha

*4. sowing method-line  
sowing with Row to row &  
Plant to Plant distance;*

Row to row - 25cm  
Plant to plant -5cm

*5. Fertilizer doses*

40:20:10 NPK Kg/ha.

*6. Weed control;*

*Manual*

First weeding - 20-25 days after sowing.

Second weeding - 40- 45 days after sowing

Weedicide - Isoproturon 0.5 kg *a.i./ha* just after sowing.

*7. Disease & Pest Control;  
(Low cost Management)*

a. Soil & seed treatment with *Trichoderma viridi*

b. Seed treatment with Imidachloprid @ 3ml/10lit for 3-4 hrs for Shoot fly

*Irrigation;*

Once protective irrigation if long dry spell.

*Harvesting;*

After physiological maturity

## Consumption pattern of Small Millets in M.P.

Crop	Consumption pattern
Kodo Millet	Rice & Chapati, <i>Payes</i> (fermented product)
Little Millet (Kutki)	Rice, <i>Pysum (Kheer)</i>
Barnyard Millet (Sawa)	Rice & <i>Pysum (Kheer)</i>
Finger Millet (Ragi)	Chapati,



कोदो के चावल बनाने की परंपरागत  
ग्रामीण विधि

**Kodo millet**  
**(dksnks) JK-439**  
**(Yield 20- 25 qtls/ha)**  
**Duration : 90-95 days**







**DPS 9-1 dksnks**  
(उपज 22- 28 क्वि./हे)  
अवधि : 90-95 दिन

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## (ब) कुटकी

iztkfr	vof/k	mRiknu(q/ha)
जे.के. – 8	70-75	8-10
जे.के. – 36	75-80	10-12
को-2	90-95	10-15
OLM-203	115-120	15-18
DLM-4	80-82	10-12
DLM-9	65-70	10-12
DLM-322	63-66	12-15



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## Little Millet JK-36



अवधि : 75 दिन

उपज क्षमता (क्विं/हे): 12 – 15

सूखा सहनशील ।



## (स) Finger Millet (jckh)

iztkfr	vof/k	
mRiknu(q/ha)		
VL-149	110-115	20-25
VR-708	98-100	18-20
RAU-8	105-110	20-23
GPU-48	102-106	15-18
PR-202	95-100	15-18
GPU-28	105-110	16-20
PES-400	95-100	18-20

White Ragi:-KMR-344  
Yield – 18-20 q/ha.  
Duration- 95-100 days.



## Barnyard Millet (Ikaok)

iztkfr	vof/k	
	mRiknu(q/ha)	
PRJ-1	110-115	20-25
VL-29	87-105	15-18
K1	85-95	15-18
VL-200	93-97	16-20
VL-198	95-100	18-22
DBM-7	70-75	15-18

Dindori - DBM 7  
Yield – 15-18 qt/ha.  
Duration- 70-75 days.



Foxtail millet (Kangni)

# Field Demo. on K.M.



# KM + PP (8:2) in inter cropping studies in KM Trial







*Panicle of single tiller of Kutki  
DLM-103*



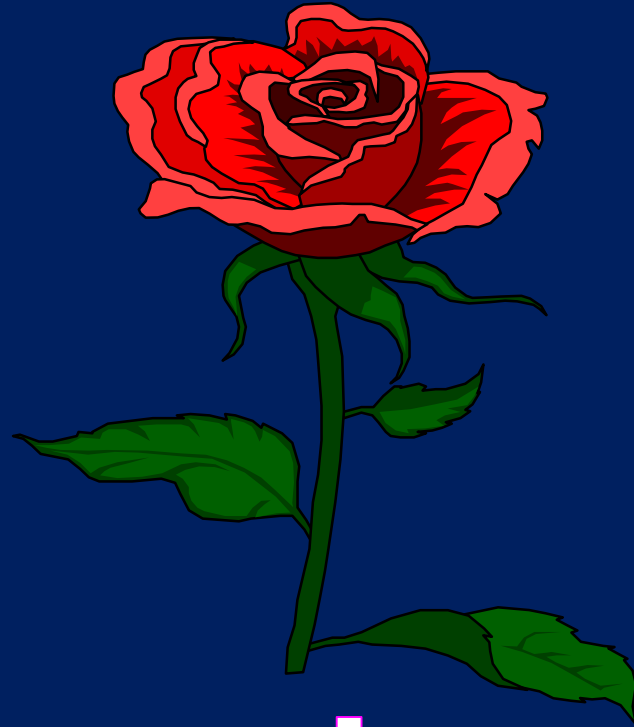
*Seed of Kutki DLM-103*



**Kutki (Little Millet) - DLM-103**

# Baiga Folk Dance, Chada (Bajag)





Thank you