

## **Spreading of Phule Jaywant Hybrid Napier in Solapur District: A reality**

**Introduction:** Hybrid Napier Grass locally called as Ghass Gavati is important fodder grass. It is perennial grass having highest green fodder productivity as compare to other fodder crops or grasses in the world. The hybrid variety Phule Jaywant gave 2500 to 3000 Qtl./ha./yr green fodder yield. It contains 10.35% proteins, 2.38% fat, 30.19% fibers, 12.32% minerals, 45.76% nitrogen free extract, 0.52% calcium, 0.21% phosphorus and having 61.8% total digestibility (IVDMD).

**Problem:** Green fodder plays crucial role in animal health and milk production and also the cost of milk production. The availability of green fodder is 76% less as per requirement. To cover the deficit of green fodder production also increasing the productivity of animals improved variety and production technology plays important role.

The PRA survey reveals that most of the dairy farmers having small dairy unit i.e. 1 to 4 animals and comes under small farmer category. The all farmers are middle age group i.e. in between 25-45 years and having education up to secondary or higher secondary level. Some farmers are un-educated. The farmer doesn't have bullocks or tractor for cultivation of fodder and also the scarcity of irrigation water. The cultivation of seasonal fodder crops increases the production cost. The seasonal fodder crops having high nutritive value during half flowering stage and this stage having small period, within this period farmer unable to feed all green fodder ultimately reduce the nutritive value of fodder. During summer season farmer unable to cultivate seasonal fodder because of required more no of irrigations. Small farmers unable to give sizable land for fodder cultivation. The farmers are un-aware about improved perennial fodder variety, some farmers having old varieties but having high oxalic acid and low green fodder production as compare to improved varieties. The reasons for low production are the farmer's doesn't know improved cultivation practices and un-availability of improved varieties at local level. Due to the scarcity of fodder farmers were not in position to increase the dairy or farm animals.

The use of old variety of hybrid Napier i.e. Yashwant which reduces the cost of cultivation and increases yield as compare the seasonal crops but having the high oxalic acid contain but Phule Jaywant have 35% higher green fodder yield than Yashwant and only 1.92% oxalic acid contain and also reduces the cost of cultivation.

**KVK'S intervention:** As per PRA survey KVK identified the problems. The use of old variety of hybrid Napier i.e. Yashwant which reduces the cost of cultivation and increases yield as compare the seasonal crops but having the high oxalic acid contain but Phule Jaywant have 35% higher green fodder yield than Yashwant and only 1.92% oxalic acid contain. So the KVK through the assessment introduced the Hybrid variety Phule Jaywant in Sawleshwar, Tal. Mohol during kharif 2008.

The KVK, Solapur had opted to conduct technology assessment on Phule Jaywant in concern with its productivity and palatability at Sawaleswar Tal : Mohol, because of its good results i.e. 16.15 % increased green fodder yield. KVK had planned and conducted FLD at Mongoli , Tal: S. Solapur (2009) Dongaon, Tal: N. Solapur (2010) Sohale, Tal : Mohol,(2011), Dahitne, Tal: Barshi (2012). The technology weeks & Kisan Melas celebrated by KVK since from 2008 at instructional farm. The live demonstrations of Hybrid Napier and other 26 fodder crop varieties demonstrated in this programme every year. The efforts of KVK's seen by ATMA agency and collaborate with KVK from last 4 years to demonstrate live fodder crops especially Hybrid Napier Phule Jaywant at KVK's farm during technology week.

In case of training programmes these were planned for practicing farmers (off campus) Extension functionaries (on campus) since from 2008. The extension literature, technical folder popular articles, Radio talks, TV Shows were published. Also during the veterinary advisory services this issue was highlighted before the farmers besides in farm had made available the critical planting material (4.4 lacks setts) to the farmers directly and indirectly through govt. department till date.

#### **KVK's efforts for introduction & popularize the technology of H. N. Phule Jaywant**

<b>Sr. No.</b>	<b>Particular activities</b>	<b>No</b>	<b>No Villages covered/ Nug</b>	<b>No. Of Benefishries</b>
1	No of Training Programme for farmers	09	06	278
2	No of Training Programmes for Extension Functionaries.	03	On Campus	58
3	Lecture Delivered As Resource Person	02	02	184
4	Extension Literature on Fodder	02		
5	Technical Folder on Hybrid Napier (2000)	01	-	430
6	Popular Articles	01	-	-
7	Radio talk/TV talk/Video Show/Film Show	05	-	-
8	KMAS(2012-13)	24 SMS	55	878
9	Assessment	01	01	04
10	Front Line Demonstrations	05	05	35
11	Field Days	04	04	97
12	Kisan Melas Live H. N. Demonstration	05	-	1435
13	Technology weeks Live H. N. Demonstrations	06	-	39598
14	Fodder Demonstrations on fodder crops/Grasses collaboration with ATMA, Solapur	04	-	36927
15	Veterinary Advisory Services	7 yrs.	-	1511

**Output:** Due to technical backstopping and continuous advisories by Krishi Vigyan Kendra, Solapur, the area under Phule Jaywant Hybrid Napier are increased very speedily. Due to the KVK intervention the green fodder yield was increased by 14.04 percent and increased net profit of Rs. 9,486 per acre.

**The details of Village & Tahsil wise area under Phule Jaywant due to critical input supplied by KVK, Solapur.**

Sr No	No of Villages	Tahsils	Setts	Area (ha)	No of Farmers
1	23	Mohol, Dist. Solapur	138500	7.5	371
2	22	N. Solapur, Dist. Solapur	103547	5.5	245
3	21	S. Solapur, Dist. Solapur	110070	6.0	315
4	07	Akkalkot, Dist. Solapur	11808	0.5	32
5	01	Barshi, Dist. Solapur	63100	2.1	18
6	03	Pandharpur, Dist. Solapur	5400	0.16	03
7	04	Tuljapur, Dist. Osmanabad	2200	0.12	4
8	02	Umarga, Dist. Osmanabad	600	0.03	2
9	01	Osmanabad, Tal Osmanabad	500	0.02	1
10	01	Mauda, Dist. Nagpur	250	0.01	1
	<b>85</b>	<b>Total</b>	<b>4,35,975</b>	<b>21.94</b>	<b>992</b>

KVK, Solapur has taken lot efforts for the making that technology more popular by various activities. With this efforts 968 farmers from 85 villages had procured 4,36,000 setts of Phule Jaywant from KVK. In addition to this mouth to mouth publicity & Department of Animal Husbandry, Z.P., Solapur has contributed to spread this technology. Due to KVK intervention the technology spread on 2500 farmer's field from more than 140 villages of Solapur district.



**Technology demonstrated through FLD on farmers field at village Kalman, Tal: North Solapur**



**A Field day for dissemination of IFTs in Hybrid Napier at Kalman during yr 2013-14**

**Outcome:** The Hybrid Napier Phule Jaywant has potential to produce higher quality of green fodder from less cost of cultivation. This reduces the cost of cultivation as compare to seasonal fodder crops so the above said farmers increase their area under this variety. The



horizontal spread of these grass were happened due to massive extension activities and the input service i.e. setts of Phule Jaywant easily available at farmers level.

Presently 2500 number of farmers from 140 villages is using Phule Jaywant as green fodder for their cattles. Due to use of Phule Jaywant as green fodder the milk production per lactation has been incised by 4-7 % per annum.



A View of Field Day organized on Phule Jaywant Hybrid Napier FLD plot at Kalman, Tal: North Solapur



Demonstration on silage making for conservation of fodder for off period feeding.



Promotion of Hybrid Napier on Bunds at Dahitne cluster.