Wheat

Recommendation released in last 10 years

<table>
<tr><td rowspan="2">2019-20</td><td>1</td><td>Sowing of wheat variety Samadhan in medium black soils of Maharashtra under deficit irrigation for obtaining more yield and returns, it is recommended to follow normal sowing i.e. between 1-15 November and if one irrigation is available should be given at 41st DAS, if two irrigation are available give at 41st and 62nd DAS alongwith pre and post sowing irrigations.</td></tr>
<tr><td>2</td><td>Since, 1996-97 to 2015-16, the increase in Minimum Support Prices (MSPs) of Bajra, Paddy and Wheat were less than the increase in inputs prices by 23, 27 and 48 per cent, respectively. Therefore, it is recommended that there is need to maintain the parity between Minimum Support Prices (MSPs) and input prices in order to safeguard the interest of cereal producers of Maharashtra.</td></tr>
<tr><td>2018-19</td><td>3</td><td>The increase of 19 and 27 per cent in employment, 24 and 38 per cent in the output, 27 and 29 percent income levels while reduction of 4 and 19 per cent in the per quintal cost of cultivation in medium over low and high over medium adoption group, respectively was the result of adoption of recommended package of practices for wheat cultivation. For the cost reduction and output maximization, it is recommended that the farmers shall adopt the recommended package of practices.</td></tr>
<tr><td rowspan="2">2017-18</td><td>4</td><td>Sowing of wheat crop during 16th November to 1st December is recommended to minimize the incidence of aphids, jassids and shoot fly and reduce the grain yield losses caused by them.</td></tr>
<tr><td>5</td><td>Principle component analysis reveals that, 99 per cent farmer of the total respondents under study were categorized in low and medium adopters groups, while technology decomposition analysis reveals that, among the University recommended technologies, nutrient management (40.90%), seed treatment (15.33%), growth stage-wise irrigation management (13.55%), preparatory tillage (8.78%), time of sowing (8.71%) and improved variety (7.21%) were the major contributing technologies in the wheat productivity. Hence, it is recommended that the farmers should adopt these technologies to the maximum extent to achieve the potential wheat yield.
<table>
<tr><th>Stage</th><th>Production</th></tr>
<tr><td>Seed Production</td><td></td></tr>
<tr><td>University Farm</td><td>9,680 q</td></tr>
<tr><td>Farmers Participatory</td><td>31,320 q</td></tr>
<tr><td>Total</td><td>41,000 q</td></tr>
<tr><td>Grafts and Plantlets</td><td>11.2 lakh</td></tr>
<tr><td>Biofertilizers</td><td>25 q & 41 Lit.</td></tr>
<tr><td>Biopesticide</td><td>61 q & 8033 lit</td></tr>
</table></td></tr>
<tr><td>2016-17</td><td>6</td><td>Application of 10 t FYM ha^{-1} + nitrogen, phosphorus and potassium as per yield target equation for 45 to 50 q ha^{-1} yield of wheat and maintaining soil fertility is recommended for Inceptisols of Western Maharashtra.
<table>
<tr><th colspan="2">With FYM</th><th colspan="2">Without FYM</th></tr>
<tr><td>FN</td><td>= 7.42 T – 0.88 SN – 2.45 FYM</td><td>FN</td><td>= 8.09 T – 0.96 SN</td></tr>
<tr><td>FP_2O_5</td><td>= 1.79 T – 1.47 SP – 0.33 FYM</td><td>FP_2O_5</td><td>= 2.26 T – 1.86 SP</td></tr>
<tr><td>FK_2O</td><td>= 4.77 T – 0.47 SK – 0.65 FYM</td><td>FK_2O</td><td>= 5.54 T – 0.54 SK</td></tr>
</table></td></tr>
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		Where, FN, FP_2O_5 and FK_2O are fertilizer N, P_2O_5 and K_2O in Kg ha^{-1} respectively, T is yield target q ha^{-1} for wheat and SN, SP, and SK are soil available N, P and K kg ha^{-1} respectively. FYM is Farm Yard manure in t ha^{-1}
	7	The replacement of 30 per cent wheat flour with the flour of high iron content Dhanshakti pearl millet for making iron rich sponge cake is recommended.
2015-16	8	The application of elemental sulphur @ 20 kg ha^{-1} mixed with FYM one month before sowing of soybean along with recommended dose of fertilizer to sulphur deficient soils of Sub montane Zone of Maharashtra is recommended for higher yield and returns of soybean-wheat cropping sequence. **Recommended fertilizers** Basal dose of wheat; FYM @ **5**t ha^{-1} + 120:60:40 N: P_2O_5:K_2O kg ha^{-1} Seed treatment of wheat with *Azotobacter chroococcum* and PSB (each 25 g kg^{-1})
	9	The application of general recommended dose of wheat (120:60:40 N:P_2O_5:K_2O kg ha^{-1} and FYM @10 tha^{-1}) with soil application of incubated ferrous sulphate @ 20 kg ha^{-1} (incubated in 100 kg FYM for 15 days) is recommended for higher yield, returns and iron availability in iron deficient soils of Plain zone of Western Maharashtra.
	10	Seed treatment with thimethoxam 30 % FS @ 7.50 ml /10 kg wheat seed as preventive measure is recommended for the control of wheat aphids, jassid and shoot fly.
	11	The tables developed by Mahatma Phule Krishi Vidyapeeth for Tahsils of Western Maharashtra are recommended for estimating weekly water and irrigation requirement of wheat (normal, early and late sowing) by surface and sprinkler methods. Further, the maps developed in Geographical Information System (GIS) are recommended for estimating weekly water and irrigation requirement by surface and sprinkler methods.
	12	The adoption of wheat growers about *Samadhan* variety suitable for timely and late sown conditions and *Netravati* variety suitable for restricted irrigation conditions is low due to unavailability of seed inspite of having knowledge and preference. Large scale seed production programme for increasing availability of seed is recommended for increasing adoption.
2014-15	13	Molecular markers csLV34 and cssfr5 either individually or in combination are recommended for detection and rapid screening of leaf rust resistance gene *Lr34* in aestivum (bread) wheat improvement programmes.
2013-14	14	Application of recommended dose (120:60:40 NPK kg /ha) in water soluble form through drip in 12 weekly splits as per given schedule alongwith 3 foliar sprays of 2 % urea phosphate at 30, 45 and 60 DAP is recommended for higher yield, efficient water and nutrient use for wheat in medium deep black soils.
	15	It is recommended that good quality popped wheat can be obtained from durum wheat cultivar of Godavari by adopting following process.

Fertilizer Schedule Per cent nutrients to be applied in 12 weekly splits

Days after planting	**N**		**P**		**K**	
	%	**(kg/ha)**	**%**	**(kg/ha)**	**%**	**(kg/ha)**
1-21 (3 equal weekly splits)	25	30.0	15	9.0	24	9.6
22-42 (3 equal weekly splits)	47	56.4	20	12.0	48	19.2
43-63 (3 equal weekly splits)	20	24.0	35	21.0	16	6.4
64-84 (3 equal weekly splits)	08	9.6	30	18.0	12	4.8
Total	**100**	**120**	**100**	**60**	**100**	**40**

		1. Soaking wheat for 3 days, boiling in water containing $NaHCO_3$ + salt 1.5% each for 60 min and drying to 12-14 % moisture. 2. Popping of pretreated wheat at 220 to 240^{0}C. 3. The snack (*Chiwada*) prepeared by using pops, packed in polythelene bags can be stored at ambient condition for one month.
	16	Temperature Induction Response (TIR) with comparative analysis of biochemical parameters identified wheat cultivar NIAW -917 as a thermotolerant cultivar and be used in further breeding programme for abiotic stress management
2012-13	17	In medium deep soils of irrigated area of Western Maharashtra, to achieve higher productivity and profitability with maintaining soil health, the soybean-onion cropping system is recommended over pear millet-wheat cropping system under irrigation condition and soybean-chickpea under limited irrigation is recommended.
	18	In irrigated area of Maharashtra, for getting maximum yield of Wheat, the recommended dose of fertilizer along with the foliar spray of 2 % 19:19:19 NPK water soluble fertilizer grade or 2 % DAP at 55 and 70 days after sowing is recommended. Improved Technology: For timely sown wheat crop 120:60:40 and for late sown wheat crop 90:60:40 NPK kg ha $^{-1}$, foliar spray of 2 % concentration i.e. 200 g 19:19:19 NPK water soluble fertilizer grade or DAP in 10 litre of water.
	19	Irrigation @ 90% crop evapotranspiration (ETc) at an interval of two weeks is recommended under limited water availability for obtaining higher wheat yield.
2011-12	20	Application of FYM @ 1 t ha-1 before sowing and adoption of paired row sowing at 15 cm distance between two rows and 30 cm between paired rows along with 70:35 Kg ha-1 N:P2O5 in the form of briquettes (2.7 g briquette) placement at 30 cm distance in paired rows at 10 cm depth, 10 days after germination is recommended for obtaining higher monetary returns of wheat on Vertisols of Plain Zone of Western Maharashtra.
	21	Two sprays (first spray at the occurrence of infestation and second spray 15 days thereafter) either *Metarhizium anisopliae* or *Verticillium lecanii* 1.15% WP @ 40g/10 liter of water are recommended for the control of wheat aphids.
	22	The seed treatment of deltamethrin 2.8 EC @ 4 ml or lufenuron 5 EC @ 10 ml or emamectin benzoate 5SG @ 4g mixed in 500 ml of water or diatomaceous earth + MgSO4 each @ 500g per 100 kg of seed is recommended for control of storage insect pest (*Rhyzopertha dominica*) and for maintaining the wheat seed germination above seed certification standards (85%) upto 9 months of storage.
2010-11	23	Adoption of integrated nutrient management with application of FYM @ 3.75 t/ha.+ Vermi compost @1.25 t/ha along with 75% recommended dose of chemical fertilizers for both the crops i.e. Soybean (37.50: 56.25 kg/ha NP) and Wheat (90:45:30 kg/ha NPK) is recommended to obtain the higher wheat equivalent yield of soyabean-wheat system.
	24	In sugarcane based integrated farming system model consisting components of cash crops (soybean, pre-seasonal sugarcane + potato) on 0.60 ha, seasonal crops (Soybean/bajara/green gram/onion, rabi sorghum/wheat/chickpea and cowpea on 0.25 ha, fodder crops (jowar/maize on 0.44 ha), perennial grasses (0.10 ha), on 0.14 ha and cattle shade for one crossbred cow on 0.01 ha area is recommended for getting sustainable income from 1.00 ha, irrigated area in scarcity zone of Maharashtra.

	25	Two sprays of thiamethoxam (25 WG) @ 1g or acetamiprid (20 SP) @ 5 g/10 litres of water at an interval of 15 days are recommended for the management of aphid as and when the infestation of wheat aphid is noticed.
2009-10	26	Soybean – Wheat cropping sequence in deep black soils of plain zone of Western Maharashtra, the application of 50 % recommended dose of N through chemical fertilizers + 50 % N through FYM along with the P_2O_5 and K_2O to both the crops for higher yield, monitory returns and to sustain soil fertility is recommended.
	27	Under irrigated condition of plain zone of Western Maharashtra the Groundnut (*kharif*) – wheat (*rabi*) – coriander (summer) crop sequence is recommended with application of 2/3 and 1/3 recommended dose of nitrogen to groundnut crop, 1/3 and 2/3 dose of nitrogen for wheat crop should be given through FYM and chemical fertilizers respectively and for coriander crop recommended dose of fertilizer through chemical fertilizers should be applied for obtaining higher monetary returns.