

**Research information and recommendations made by the department for scientific community/Farming community/Industrial community (Since 2004):**

<b>Sr. No.</b>	<b>Title of Research Information</b>	<b>Year of Research</b>
<b>1.</b>	Technology for production of basil powder (2010). The farmers and the agro-processing entrepreneurs interested in the production of dehydrated basil leaves/powder are recommended to use the “Technology for production of dehydrated Basil leaves/powder” developed by Anand Agricultural University. The technology produces superior quality product with higher euginol content, high chlorophyll content, longer shelf life and sensory score as compared to product obtained by traditional drying.	<b>2010-11</b>
<b>2.</b>	Effect of ethereal and gibberellic acid (GA3) on fruit ripening in chilli crop, cv.GVC-11: The farmers of middle Gujarat agroclimatic Zone –III planting chilli variety GVC 111 for seed production purpose are advised to spray the $GA_3 @ 50 \text{ mg/l}$ at 45 DATP (ICBR 1:15.8) for getting higher seed yield with better seed quality.	<b>2011-12</b>
<b>3.</b>	Effect of integrated nutrient management through vermicompost on productivity of transplanted pearl millet in summer season : The farmers of middle Gujarat Agro-climatic Zone III growing hybrid transplanted pearl millet in summer season are advised to apply vermicompost @ 2 tones ha-1 and 120 kg nitrogen ha-1 in two equal splits at the time of transplanting and at 30 days after transplanting for securing higher yield, quality and net return.	<b>2012-13</b>
<b>4.</b>	Efficacy of NADEP compost in agro-climatic zone-3 in improving yield and quality of pigeon pea (AVPP-1) : The farmers of middle Gujarat Agro climatic Zone –III growing vegetable pigeon pea var. AVPP-1 are advised to apply 25 kg N ha 1 through 2 t NADEP compost and 500 kg castor cake along with 1 litre Rhizobium culture at sowing for higher yield, better quality and maximum net return with maintaining soil health.	<b>2012-13</b>
<b>5.</b>	Agronomic managements of pigeon pea for yield maximization : The farmers of middle Gujarat Agro climatic Zone-III growing pigeon pea (variety AGT-2) are advised to fertilize the crop with 20 kg S/ha in the form of gypsum in addition to recommended dose of fertilizer (25:50:0 N:P:K kg/ha) for obtaining higher seed yield, better quality and higher return.	<b>2012-13</b>
<b>6.</b>	Assessment of organic farming and inorganic nutrient supply system on yield and quality of pigeon pea : The farmers of middle Gujarat Agro climatic Zone –III growing vegetable pigeon pea var. Gujarat Tur-1 (GT-1) are advised to apply 25 kg N ha-1 through 5 t FYM ha-1 at sowing for	<b>2012-13</b>

	higher yield and better quality of green pod beside maintaining the soil health	
7.	Brinjal cv. AB 09 1 has higher total carbohydrates and total soluble sugars and Doli-5 has higher amount of ascorbic acid and lower amount of phenol and glycoalkaloids. Both the varieties are more suitable for consumers use as compared to other brinjal genotypes.	2013-14
8.	It is recommended that to avoid adverse effects of drought stress, wheat seeds should be treated with 100 ppm benzyladenine for 6 hr. to retain higher drought tolerant molecules such as moisture, relative water content, total chlorophyll, and total carotenoids with low membrane injury at seven days after germination.	2014-15
9.	Significantly highest content of lysine (0.427%), tryptophan (0.216%), anthocyanin (0.874 mcg%) and total anti-oxidant activity (13.876 mg/100 g.) were observed in eggs of White Leghorn layer birds fed layer mash containing purple colour maize in comparison with white maize (Gujarat Maize-3), yellow maize (Gujarat Anand Yellow Maize Hybrid-1) and High Quality Protein Maize-1 (HQPM-1), which plays an important role in value addition of eggs, increases keeping quality of eggs and helps to prevent mal nutrition.	2015-16
10.	હાઈટ લેગ હોર્ન લેયર પક્ષીઓ માટેનો મરધાં આહાર (લેયર મેશ) બનાવવા માટે પીળી મકાઈ (ગુજરાત આણંદ યલો મેઇઝ હાઈબ્રિડ-૧) નો ઉપયોગ કરવાથી સફેદ મકાઈ (ગુજરાત મેઇઝ-૩), હાઈક્વોલિટી પ્રોટીન મેઇઝ-૧ (HQPM અને પર્પલ મકાઈના ઉપયોગની સરખામણીએ ઈંડાંમાં બીટાકેરોટીન અને પ્રોટીનનું મહત્વમાં પ્રમાણ તથા પીળી જરદીમાં ઘણ પીળો રંગ જોવા મળેલ હતો જે થકી ઈંડાંમાં મૂલ્ય વર્ધન તથા ગ્રાહકેની ઘણ પીળી જરદી વાળા ઈંડાં માટેની અગ્ર પસંદગી મેળવી શકાય છે. આથી મરધાં આહાર (લેયર મેશ) બનાવવા માટે પીળી મકાઈ (ગુજરાત આણંદ યલો મેઇઝ હાઈબ્રિડ-૧) નો ઉપયોગ કરવાની ભલામણ કરવામાં આવે છે.	2015-16
11.	It is recommended that to alleviate adverse effect of water deficit stress, rice seed should be treated with 100 ppm benzyl adenine for 8 hrs. to maintain adequate level of osmolytes such as total soluble sugars, phenols and proline with low membrane injury at ten days after germination.	2016-17
12.	It is recommended that to obtain higher content of nutraceutical molecules viz., total soluble sugars, total phenols, flavonoids, protein and fiber as well as phenolics viz., ferulic acid, vanilic acid and cinnamic acid, the garden cress leaves can be harvested at 60 days after sowing.	2022-23

**Contribution in scientific/Farmers Recommendation/ variety evaluation: 80**