

Sr. No.	Name of technology	Technology ID (Krishi portal)	Principal Inventor	Co-Principal Inventor(s)	Link for details	Period of Invention	Year of Validation	Year of Release	About technology
1	REGULATED DEFICIT IRRIGATION STRATEGY OR SHORT TERM INTERRUPTION OF IRRIGATION AT PHENOLOGICAL STAGES OF TOMATO CROP FOR WATER SAVING AND IMPROVING QUALITY OF TOMATO ( <i>Lycopersicon esculentum</i> Mill.)	201562663444775	D.D. Nangare	Yogeshwar Singh, P. Suresh Kumar, P.S. Minhas	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201562663444775">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201562663444775</a>	2013-2016	2016	2016	The options of irrigation schedule will help in improving the water productivity of tomato in shallow murrum soil in the semi-arid region under limited water availability during growth season.
2	DEVELOPMENT OF MICROBIALLY DERIVED POLYMERIC PRODUCT FOR GEL FORMATION, MICROBIAL COLONIZATION AND METALS BINDING	201563524280563	Kamlesh Kumar Meena	Ajay M. Sorty, KK. Krishnani, Paramjeet S. Minhas	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201563524280563">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201563524280563</a>	2014-2017	2015	2017	The technology is based on a carbohydrate-polymeric product (referred hereinafter the product) derived from a weed plant associated halotolerant bacterium. Production of biopolymer is an induced trait of the isolated bacterial strain that can be synthesized under controlled laboratory conditions, and utilized either in crude form or prepared formulation for different purposes.
3	PLANT BIO-REGULATORS FOR ENHANCING PRODUCTIVITY AND QUALITY OF MAJOR CROPS UNDER WATER SCARCE REGIONS	201563532406642	G.C WAKCHAURE	PS Minhas, P Ratnakumar, R L Choudhary, K K Meena, N P Singh	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201563532406642">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201563532406642</a>	2012-2019	2013	2019	The PBRs like thio&#8722;urea (10 mM), sodium benzoate (100 mg L&#8722;1), potassium nitrate (KNO <sub>3</sub> ) and salicylic acid (10 µM) helped to alleviate the water stress in wheat, sorghum, onion, soybean and eggplant, respectively.
4	MICRO-BLASTING AND SOIL-MIX TECHNIQUE FOR SAPOTA CULTIVATION IN ABIOTIC-STRESSED BASALTIC TERRAIN	201628669987978	Dhananjay D Nangare	Vijaysinha Kakade, Pravin B Taware, P Suresh Kumar, Yogeshwar	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628669987978">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628669987978</a>	2013-2020	2018	2020	The technology provides an opportunity for the alternative planting methods under bedrock conditions and identifying economically advantageous planting method and soil

				Singh, P S Minhas, H Pathak					amendments for sapota orchards.
5	DRAGON FRUIT: WONDER CROP FOR ROCKY BARREN LANDS AND WATER SCARCE AREAS	201628672037221	D D Nangare	Mahesh Kumar, Pravin Taware, Vijaysinha Kakade	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628672037221">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628672037221</a>	2013-2018	2016	2018	The technology provides an opportunity for diversification of cultivating the new crop in water scarce and barren land.
6	DEFICIT IRRIGATION MANAGEMENT WITH PLASTIC MULCH IN POMEGRANATE ORCHARD IN ABIOTIC-STRESSED BASALTIC TERRAIN	201628674653663	D D Nangare	Pravin B. Taware, Mahesh Kumar, Yogeshwar Singh, P S Minhas, Vijaysinha Kakade, H. Pathak	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628674653663">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628674653663</a>	2015-2019	2018	2019	The technology provides an opportunity for water saving in pomegranate under bedrock conditions using deficit irrigation technique with mulch. The standardised method/strategy will benefit for mitigating edaphic and drought stresses and increase in economic longevity of orchards grown on rocky and barren land.
7	DEFICIT IRRIGATION MANAGEMENT IN GRAPE ORCHARD IN ABIOTIC-STRESSED BASALTIC TERRAIN	201628678020305	D D Nangare	Pravin B. Taware, Mahesh Kumar, Yogeshwar Singh, P S Minhas, P Suresh Kumar, H. Pathak	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628678020305">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628678020305</a>	2014-2018	2016	2018	The deficit irrigation scheduled at different growth stages for increasing water use efficiency and quality of berries and identifying advantageous soil amendments under deficit irrigation in Grape orchard (Variety: Thompson seedless).
8	MICRO-BLASTING AND SOIL-MIX TECHNIQUE FOR POMEGRANATE CULTIVATION IN ABIOTIC-STRESSED BASALTIC TERRAIN	201628730570552	Dr. Pravin B Taware	DD Nangare, Mahesh Kumar, H Pathak	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628730570552">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201628730570552</a>	2013-2021	2018	2021	The technology provides an opportunity for the alternative planting methods under bedrock conditions and identifying economically advantageous planting method and soil amendments for pomegranate orchards.
9	CULTIVATING MEDICINAL AND AROMATIC PLANTS IN SHALLOW BASALTIC SOIL	201629540781386	HARISHA CB	D.D. Nangare, Pravin B Taware	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201629540781386">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201629540781386</a>	2018-2021	2020	2021	The technology of utilization of barren and rocky basaltic soils for growing medicinal plants and establishing herbal garden which

									provides an opportunity for the conservation of dry land rare, endangered and threatened (RET) species.
10	HIGH-DENSITY PLANTING IN MANGO FOR ENHANCING YIELD AND RESOURCE USE EFFICIENCY UNDER ABIOTIC STRESS CONDITIONS	201629534409748	Vijaysinha D. Kakade	D.D. Nangare, Pravin Taware, Sangram Chavan, RajKumar and H Pathak	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201629534409748">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201629534409748</a>	2013-2021	2020	2021	This technology ensures better establishment of mango on rocky barren land and give higher yield per unit of land with good quality of mango by reducing water, nutrient deficit stresses.
11	MICRO-BLASTING AND SOIL-MIX TECHNIQUE FOR GUAVA CULTIVATION IN ABIOTIC-STRESSED BASALTIC TERRAIN	201629536617536	Vijaysinha D. Kakade	Yogeswar Singh, D.D. Nangare, Minhas, P.S, P Suresh Kumar, Pravin Taware, Sangram Chavan and H Pathak	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201629536617536">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201629536617536</a>	2013-2021	2020	2021	This technology provides opportunities of higher production of this fruit crop under different abiotic stresses such deficit water, shallow depth of soil and poor nutrient status.
12	REHABILITATION OF ABIOTIC-STRESSED BASALTIC TERRAIN WITH AONLA (EMBLICA OFFICINALIS)	201633497056286	Sangram Bhanudas Chavan	D.D. Nangare, Pravin B Taware, Aliza Pradhan P. Suresh Kumar, VijaysinhaKakade, R.S. Gophane and H Pathak	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201633497056286">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201633497056286</a>	2014-2021	2020	2021	The standardized orchard establishment methods will benefit towards mitigating edaphic and drought stress and increasing economic longevity of orchards grown on rocky and barren land.
13	PREPARATION OF DRAGON FRUIT SAPLINGS	201633501439931	Dr. G C Wakchaure	AR Jadhav; DD Nangare ; Vijaysinha Kakade; J	<a href="https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201633501439931">https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201633501439931</a>	2020-2021	2021	2021	The technology provides an opportunity for raising healthy and stout cuttings within short period (45-60 days) even in natural tree shade condition in

				Rane; H Pathak					native soil. The production cost of rooted sapling is Rs15-20/sapling or Rs 30-40/sapling with soil bag.
14	MULTI-FUNCTIONAL RATOON DRILL FOR RESOURCE CONSERVATION IN SUGARCANE CROPPING SYSTEM		GC Wakchaure	R.L. Choudhary, P.S. Minhas, A.K. Biswas, J. Rane, H. Pathak,		2015-2020	2018	2021	The MRD machines are suitable to perform four-five major operations in a single run under chopped trash retained ratoon sugarcane. 1. Stubble shaving 2. Off-baring 3. Root pruning 4. Placement of fertilizers 5. Sowing of intercrop
15	TRANSFORMING BARREN ROCKY BASALTIC TERRAIN INTO PRODUCTIVE LAND FOR FIELD AND HORTICULTURAL CROPS		GC Wakchaure	PS Minhas, SK Bal, P Suresh Kumar, Yogeshwar Singh, SV Ghadge, DD Nanagare, Pravin Taware, Jagadish Rane, NP Singh, H Pathak,		2012-2020	2021	2021	Using this technology, shallow basaltic rocky land in Deccan plateau includes the state like Maharashtra, Madhya Pradesh and Karnataka in India can be brought under cultivation so that the cultivable area of the country can be increased.
16	BIOPOLYMER FOR ENHANCEMENT OF CROP AND SOIL HEALTH UNDER ABIOTIC STRESS CONDITIONS		KK Meena	Ajay M. Sorty, Dr. G. C. Wakchaure and Dr. Satish Kumar		2015-2020	2018-2020	2021	The biopolymeric product is capable of holding large amount of moisture, binding a variety of metals including plant micronutrients and also induces microbial colonization. Therefore, it was rigorously evaluated and proven for plant-beneficial properties under field conditions in multiple crops.
17	DEVELOPING CLIMATE RESILIENT INTEGRATED FARMING SYSTEM FOR		S.A. Kochewad	Aliza Pradhan, Sangram		2019-2021	2019	2021	To address this, judiciously integrating appropriate farming system components in optimum

	ABIOTIC STRESSED REGIONS			Chavan, Vanita Salunkhe, Rajkumar B, Viajsyinha Kakade, V. Rajagopal, G.C. Wakchaure, Mukesh Bhendarkar, L.R. Meena, N. Subash, Pravin Taware, P. Chahande and H Pathak					size on available resources helps to diversify the crop failure risk and enhance efficient utilization of available land, labour and water resources for obtaining sustainable income.
18	SYNTHESIS OF NANOPARTICLES USING FISHERIES WASTE		Neeraj Kumar	-		2015-2021	2021	2021	Generally, the higher percentage of fish tissues were wastage including liver, gill, intestine, scale and skin which are discarded in the environment and creates pollution in ecosystems including aquatic environment. However, we planned to use such discarded organs for the synthesis of nanoparticles that can be used in the fisheries for pathogen protection and feed developments.
19	FARM POND BASED AQUACULTURE MODEL IN		Mukeshkumar	Bhaskar Gaikwad		2018-2021	2021	2021	This model of fish farming results in increasing the farmer's

	WATER STRESS IN RAINFED AREAS								income with their existing water resources. It is also expected that this additional water area will prove a boon to 'Blue revolution' programmes to achieve blue revolution and help to achieve target of fish production to 220 lakh metric tons by 2024-25 set under Pradhan Mantri Matsya Sampada Yojana (PMMSY).
20	REHABILITATION OF ABIOTIC-STRESSED BASALTIC TERRAIN WITH AONLA (EMBLICA OFFICINALIS) CULTIVATION		Sangram Chavan	D.D. Nangare, Pravin B Taware, Aliza Pradhan. P. Suresh Kumar, Vijaysinha Kakade,. R.S. Gophane and H Pathak		2014-2021	2020	2021	Mitigation of edaphic and drought stress is essential to rehabilitate about 8% of rocky and barren lands in the country. Establishment of aonla fruit orchard on such land provides an opportunity for productive and economic use.