

Proposal for Fostering Commercialization of ICAR-CAZRI Patented Technology





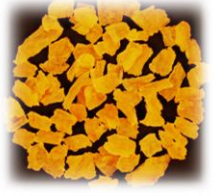
The ICAR-Central Arid Zone Institute has developed patented innovations / technologies / protocols / products (Enclosed as Annexure - I) which are ready for commercialization by the interested stakeholders in the country. The procedural steps for obtaining these technologies are mentioned below:

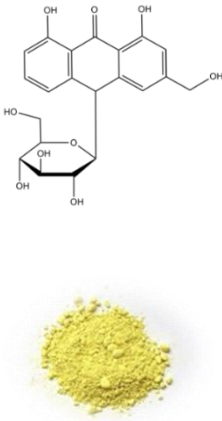
1. Choose ICAR-CAZRI Patented Technology	Please mention the name(s) of the patented technology(ies) (Enclosed as Annexure - I) in your covering letter												
2. Undertake an MoA with ICAR-CAZRI.	<ul style="list-style-type: none"> • The interested persons/parties shall be required to sign MoA with ICAR-CAZRI for commercial purpose as per ICAR guidelines. • The interested persons/parties shall pay a negotiable fee as decided at the time of signing of this Agreement. • The party shall also be required to pay negotiable royalty (2-5%) on net ex-factory sale price of product made, used & sold by contracting party. • The licence for transfer of know-how shall be non-exclusive as per ICAR guidelines. 												
3. “Know your client” Performa to be filled.	Enclosed as Annexure - II												
4. Remit amount for each of the ICAR-CAZRI patented technology in the Institute account electronically or through a demand draft in favour of Director, CAZRI, Jodhpur, payable at Jodhpur.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Bank details:-</td> </tr> <tr> <td style="width: 50%;">Name of Institute</td> <td>Director, Central Arid Zone Research Institute, Jodhpur</td> </tr> <tr> <td>Bank Name</td> <td>State Bank of India</td> </tr> <tr> <td>Branch Name</td> <td>Shastri Nagar, Jodhpur</td> </tr> <tr> <td>Bank Account No.</td> <td>10185988118</td> </tr> <tr> <td>IFSC Code</td> <td>SBIN0003258</td> </tr> </table>	Bank details:-		Name of Institute	Director, Central Arid Zone Research Institute, Jodhpur	Bank Name	State Bank of India	Branch Name	Shastri Nagar, Jodhpur	Bank Account No.	10185988118	IFSC Code	SBIN0003258
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For more details if any required, please contact as below:

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ICAR-CAZRI Patented Technologies for commercialization

SN	Title of Technology	Description	Photograph
1.	Jaisalmeri preserve and candy from fruit of Toosh (<i>Citrullus colocynthis</i>)	<ul style="list-style-type: none"> The Jaisalmeri preserve and candy is an edible product that has been developed by ICAR- Central Arid Zone Research Institute, Jodhpur and has been granted patent for the product as well as the method of its preparation. In western Rajasthan, Toosh/Tumba (<i>Citrullus colocynthis</i>) grows naturally on barren and uncultivated wasteland (about 7.9 lakh ha) during monsoon in the districts of the Jaisalmer, Barmer, Bikaner, Jodhpur, Churu, Ganganagar, Hanumangarh and Jalore on the sandy plains and dunes. Presently, its fruits are used mainly for feeding of farm animals and seeds are used for extraction of non-edible oil for soap industry. However, there is no edible product from this plant due to presence of bitter and cytotoxic component i.e. "cucurbitacin". A new patented technology has been developed and is ready for commercialization related to detoxification and de-bittering the fruit pulp of Tumba (<i>Citrullus colocynthis</i>) and converting it into edible digestive sweet products known as "Preserves and Candy" that can be served as dessert and can be directly used by farmers, confectionary and cottage industries. About one hectare can yield 200-250 quintal of fruits that has 74% pulp which can be used for the preparation of preserve and candy. Potential sale price of this product is about ₹ 50 to 70/- per kg. 	  <p style="text-align: center;">Candy</p>  <p style="text-align: center;">Preserves</p>
2.	Preparation and method of processing of Aloe candy from Aloe species	<ul style="list-style-type: none"> Aloe candy is an edible product developed by ICAR- Central Arid Zone Research Institute, Jodhpur from Aloe vera through a novel process and has been granted patent. Aloe vera is a hardy perennial tropical plant that can be cultivated in drought areas under low rainfall regions with less input. Active substances of Aloe are located in three separate sections of the aloe leaf - fillet, rind (or cortex) and the vascular bundle (yellow sap). However, it is not primarily used for edible purpose because of poor shelf life (despite use of preservatives), heat and pH instability, oxygen sensitivity and other factors that contributes to the deterioration of its bioactive active components and hence limits its use for edible purpose. All the above drawbacks have been removed through this patented technology and a novel ready-to-eat delicacy from the leaf of Aloe vera plant called "Aloe candy" has been developed. The product also has high content of fiber and low water content with appealing flavor, color, texture and can be directly used by farmers, confectionary and cottage industries. About 25-30 tonnes of leaves can be harvested from one hectare. Each kg of Aloe vera leaves yields about 100 g of candy which cost about 200 to 300 per kg. 	  <p style="text-align: center;">Aloe Candy</p>

<p>3.</p>	<p>A Novel method for isolating aloin by extraction from yellow sap of Aloe vera</p>	<ul style="list-style-type: none"> • The Aloin is a non-edible bio-constituent of Aloe vera having systemic and therapeutic significance which is isolated through a novel method developed by ICAR-Central Arid Zone Research Institute, Jodhpur that has been granted patent. • Aloe vera a hardy perennial tropical plant that can be cultivated in drought areas under low rainfall regions with less input has active ingredient located in three separate sections of the aloe leaf - a fillet, rind (or cortex) and the vascular bundle (yellow sap). • Aloin, also known as barbaloin, is a one of the major constituents of yellow sap that is present in vascular bundle of at least 68 Aloe species commonly known as bitter Aloe. This is a naturally occurring bitter, lemon-yellow colored substance having medicinal values such as laxative, antirheumatic, antiarthritic and other pharmaceutical properties besides being used as a stabilizer in the preparation of gold and silver nanoparticles. They are in great demand in national and international market. • The patented method is simple and requires low input for isolating aloin under ambient temperature (22-35° C), directly from naturally occurring yellow sap of Aloe sp. as the starting material. The method gives more than 70% yield of about 95% purity. 	 <p>The image shows the chemical structure of Aloin (Barbaloin) at the top, which is a complex molecule consisting of a xanthone core with a glucose moiety attached. Below the structure is a photograph of a small pile of bright yellow powder, representing the isolated aloin.</p>
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KNOW YOUR CLIENT



Name (Mr./Ms):

Occupation:

Organization/Company:

Age:

Address (Office/Company):

Phone (Office):

Mobile:

Fax:

E-mail:

Information required:

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Purpose:

Place:
Date:
(Please fill all fields for early processing)

Signature

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For details visit our web site: <http://www.cazri.res.in>