



**BHADALE GROUP OF COMPANIES
- IT AND REAL ESTATE**



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Agri Products Catalogue

Bhadale Group of Companies consists of Bhadale IT Developers Pvt. Ltd and Bhadale Real Estate Developers Pvt Ltd.

1. **Bhadale IT Developers Pvt. Ltd** is an IT and Computer Engineering company

This company provides consultation in areas of cutting edge technologies, research outsourcing, and software consultation related to data center and related engineering practices

2. **Bhadale Real Estate Developers Pvt. Ltd** is a Real estate company

This company provides development of Infrastructure for IT Datacenter and allied sectors. It manages the engineering design, landscaping, civil architecture, presently serving internal projects.

Bhadale Group of Companies has aggressive programs in place to serve the niche market.

Bhadale Group Business Division, Agri Products department

Agriculture department hosts various products leveraging upon latest emerging technologies. Most of our products have got a matured approach that offer full benefits and ever growth potential to the consumers. We offer scientific ways of solving the pain points of farmers, research clinical trials and allied industries that enable faster, easier and economical ways of managing the farming industry across major downstream, mid stream and upstream business units. We offer value added products that enable various players like farmers, scientist, trainer, climate, distributor and seller to get the best value from this market segment and make better profits with help of AI, automation and engineering systems that enable the user to lift heavy tasks with ease.

Special care we offer by using emerging technologies like quantum technologies, AI, and ML, Robotics, Drones, Geo-tags etc. Below are few of our products

1. **Climate aid**
2. **Precision agriculture (PA), satellite farming or site specific crop management (SSCM)**
3. **Agricultural tube farming aids**
4. **Smart food chain**
5. **Smart Package and Storage**
6. **Smart harvesting**
7. **Smart Crop life cycle**
8. **Smart transport (upstream, downstream, mid stream)**
9. **Smart Agri business plan**
10. **Smart BCP**
11. **Smart energy**
12. **Smart business structures**
13. **Smart ERP**

Few of the deliverables

The package is a set of hardware, software, network, security, as a farmer solution that can be setup using **solution cafe kit for farmers**. These will include common use cases, solutions, lifecycle management, monitoring, steps, issues, exceptions explained, control using human in middle loop, Wifi, Bluetooth, TV, Mobile, Laptop connectivity. An end to end product that allows farmers to use wizards to configure the system for

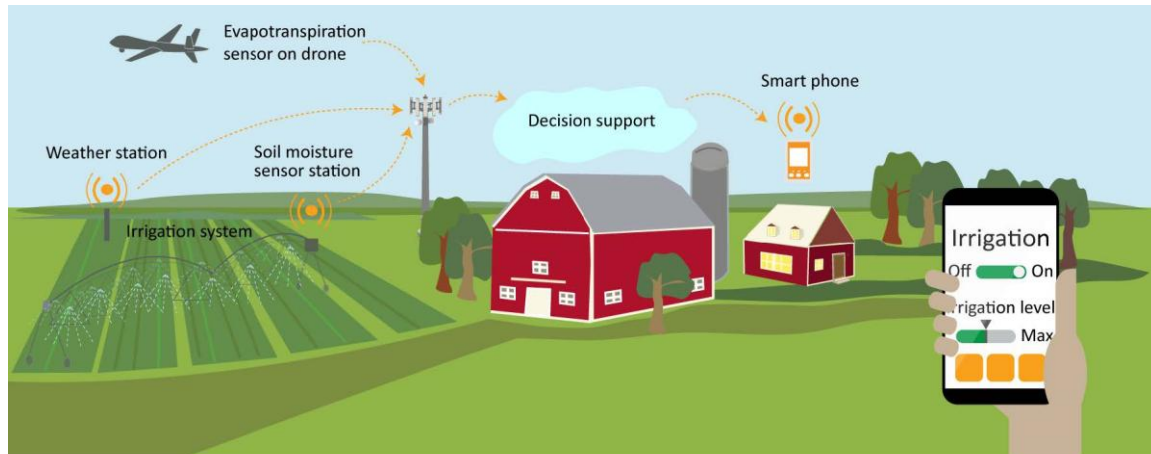
personal uses and available assets like dry area, drip irrigation, and plan as per expert advice based on various reports.

Also help farmers to setup local packing unit, transport to nearby cold storage, self shop and advertising in local market, enabling easier sales, storage or negotiating price

Our solutions are mainly for the small business setup, which have legal setup and establishment and can avail the benefits meant for the residents. This is a starting package for small, home based, sole owner business, allowing full automation and ready to use cloud bundles, empowering a single owner to make best use of technology at affordable cost and max features, productivity tools and network of references, knowledge base, continuity etc. This is a starting package for a farmer with land and water and legal ownership

Details of the above are put in the table below

Product details



Source: GAO. | GAO-20-128SP

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We have a large set of subcategories; few are mentioned below with details tabulated

Product No	Product Name	Key Product features
1	Farmer's Climate aid	Use of weather patterns to forecast weather for farmers
2	Precision agriculture/satellite farming aids	Precision agriculture (PA), satellite farming or site specific crop management (SSCM) is a farming management concept based on observing, measuring and responding to inter and intra-field variability in crops. The goal of precision agriculture research is to define a decision support system (DSS) for whole farm management with the goal of optimizing returns on inputs while preserving resources
3	Agricultural tube farming aids	Thousands of mile-long robotically managed closed-environment agricultural tubes , interspersed with photovoltaic strips across the food belt that is least agri friendly or even in a oasis, lake or offshore sea that is silent and can host agri
4	Smart food chain	We offer optimized food chain supply management by using various quantum and classical algorithms that offer big data analysis in matter of several seconds that usually takes over a day, overnight batch processing in a conventional system. We analyze various types of datasets that are collected at edge points, various substations, various storage units, plants, various suppliers, partners and engagements and point of contacts with various dependencies. This allow for quick and dynamic decision making by a farmer without getting into details. This offers time-sensitive operations that allow farmers to make decisions so that their perishable goods move quickly to the desired consumer base or stalls in the downstream retail centers.
5	Smart Package and Storage	We offer Govt and various approving agency guidelines for package and handling of the various raw products that needs to be shipped to local storage at an economical price. This analysis various vendors and shipment chains that offer the farmer the best packages and storage advice that will allow the items to be pre-processed for local, export or near shore supply. This data will allow farmers to make quick decisions on a

		regular interval and even switch suppliers without much legal hassles
6	<u>Smart harvesting</u>	<p>We offer harvesting advice with use of various tools, techniques and methods from a large set of Govt approved best practices that allow farmer to get the most crop benefit without wasting or reducing the quality of the grain during harvesting.</p> <p>We offer analysis of various historical events, fires, accidents during harvesting seasons and the destruction of the fully grown crop that spoils the whole seasonal crop within matter of few hours. Few example, the rainy season, downpours, seasonal diseases, bacteria etc that can spoil the crop harvesting.</p> <p>We get details from a drone and feed it intelligent agents that analyze the type of tools, techniques to use manual or automated harvesting possibilities and any pre cutting precautions to be taken. Also finer details of the crop cut and the approximate market value can be predicted based on the quality of work.</p> <p>We offer post harvesting methods that might not been taught in the schools that allow maintaining the best quality of the crop.</p>
7	<u>Smart Crop life cycle management</u>	<p>We offer extensive crop life cycle management steps for various types of crops, trees, fruits and vegetables. We offer the mixture of crop to be grown based on market needs, soil type and best varieties that can been grown in the farmers land.</p> <p>We analyze various data from the local survey department, soil samples, drone data, and various types of vectors that can spoil the crop. We analyze and forecast farmers to continue crop to a next season or not. This allows farmers to invest only the crops that can be assured to grow well.</p> <p>Personalized attention to the unique needs of the farmer is taken care of that ensures the solutions are really true and based on facts and that can be applied to the farmers economic, capability and maturity to grow. We offer various aids, tools, charts that allow farmer to look into the crop lifecycle.</p>
8	<u>Smart transport</u>	<p>We offer various solutions to hard to crack transportation challenges like best route, best types of loads, volumes based on demand, and need of the end consumers at a certain outlet. We cover upstream, downstream, mid stream and various back office operations, logistics, storerooms, taxes, inspection approvals etc</p> <p>We look into earlier best practices and loss due to mismanagement in this area and offer our best practices that allow farmer to dispatch the product in suitable packages, suitable quantity, suitable type, quality and time that ensures the goods are supplied in the most economic way, reaches destination quicker and makes clients satisfied with the product they get, instead of getting stale or beyond use date stamped products. We also offer various schemes to farmers that allow them to reduce the price on the go and also during checkouts based on various client types. For a poor client it may offer an offer that allows them to get more instead of the product being thrown away by a rich guy.</p> <p>We use various software algorithms both from classical and quantum worlds, like Travelling salesman problem, Shortest routes, Graph optimizations, optimized binning, sorting and storage based on faster delivery and easier transfers in various container shapes, sizes and clustered base on various end client needs</p>

9	<u>Smart Agri business plan</u>	<p>We offer planning and strategies for various types of unique agriculture business needs. We give special points for dry farming, leveraging the technology for enhancing the supply to meet demands, lowering cost of production, supply and end products. This helps reduce inflation, stagflation, and offers abundance and discourages spoilage in long stores, hoarding black market etc, enabling clean economy and trustable data for ensured implementation of given promises.</p> <p>We use university and federal approved assets, seeds, samples, best practices, cropping sequences, and various risk mitigation plans to enhance the journey of the farmer right from ideation, sowing, watering, plant care, growth and harvesting all in one end to end plan. We offer various game plans to meet the unique needs of different farmers, unique needs of the soil, climate, moisture, etc</p> <p>Our plans are approved by agri experts and research units ensuring your safety and lowered risks. Also we use artificial intelligence to generate smart plans that analysis a minimum of 100 parameters allowing each plan to look into finer details.</p>
10	<u>Smart business continuity planning (BCP)</u>	<p>To ensure our clients make best use of the time and money, we offer improvised techniques, services, products, processes, and reduced impact due to dependency on online verification for rural needs, and petty transaction when hi tech and websites are not available. We offer plans for business continuity without being impacted by interruptions in external suppliers, power outages etc. We plan in advance for short term outages and have those items in reserve ensuring smooth supply</p> <p>We offer strategies to continue business uninterrupted using minimum resources and local self approved transactions that can be synchronized when online systems are available. Thick clients, Thin clients and hybrid modes using persistent technologies like block chain, local storage, and autonomous systems that work well with conventional books, paper and existing trust relations in executing a transaction.</p> <p>We use sophisticated technologies like artificial intelligence, optimized schedules, optimized supply chains, buffers for outages, water shortages, labor shortage etc that allow farmers to focus on their core operations.</p>
11	<u>Smart energy</u>	<p>We offer solutions that use smart quantum computing, and intelligent jobs allowing lesser energy needs to complete a given task. We use various energy harvesting systems, and alternate fuels to sustain business.</p> <p>We also offer conventional alternate energy sources like wind and solar. We can offer customized solutions to meet your energy needs like use of low carbon emission fuels, economically available alternatives like hydrogen fuels, synthetic fuels and bio degradable materials allowing you to meet by laws and carbon emission regulations.</p> <p>Along with these we offer our expertise in setting up mini datacenter, mini control, towers, mini energy storage and distribution stations and various types of storage for bio-mass, organics, plant mass, harvest remains, cow dung, tree pruning remains, various naturally occurring chemicals, and various electrical, hydro thermal power sources and locally available energies that allow for short and medium term energy supplies for farm needs like green house lighting, maintaining temperatures, and monitoring supplies.</p>

12	<u>Smart business structures</u>	<p>We offer advanced business structures like use of cyber physical systems, digital twins, simulators, virtual world, and lots of wizards to assist you to onboard to these.</p> <p>We showcase clients as to how cyber physical systems enable a variety of worlds to be merged like offline, online, physical and virtual worlds in developing a holistic solution allowing new ventures to onboard or exit without many hurdles.</p> <p>All of these are part of our Solution Café offering, centralized, decentralized hybrid mini data center based end client system, moving up from a central server, to an edge server, decentralized client server, b2b,b2c, b2c, g2c and various other extensions. We offer separate modules, and plug-in for various industries, of various sizes, staff needs etc that allow farmers to integrate popular ERP modules for SCM,CRM , online project management etc</p>
13	<u>Smart ERP</u>	<p>This is similar to the classical ERP; however, first class citizen designed using emerging technologies like quantum, AI, block chain, robotics, and smart intelligent pack all in a single roof with subscription to various modules designed for farmers. Our ERP is designed considering full compatibility with emerging technologies and extensible using cloud digital platforms like from Amazon, Azure, and Google Cloud</p> <p>These are approved using partner solutions for integrity and ease of use for end customer with offline and online help, support live and virtual chats. Various programs, grants, for startups, small businesses that allow personalized at individual level offer subsidized to be transfers to owners using our solution cafe.</p> <p>Our ERP modules are very easy to use and lots of wizards to help in configuring the assets and loading data into the database. We offer mini systems that can be cost effective also advanced to meet the newer challenges faced by farmers.</p>
14	<u>Custom solutions</u>	<p>Based on the unique needs of every farmer, and his economic condition, we offer tailored solutions that allow a poor farmer to start without much CapEx and move the investments to an OpEx mode allowing farmer to pay later on like in a Pay as you Go model.</p> <p>With this we give personal attention by conducting individual workshops, using data capture tools, using various intelligent wizards that generate highly customized charts plans, strategies and implementation methods along with cost metrics in any</p>

More details of the products are available at **Agri Products catalogue details.xls file**

For more details, contact below:

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