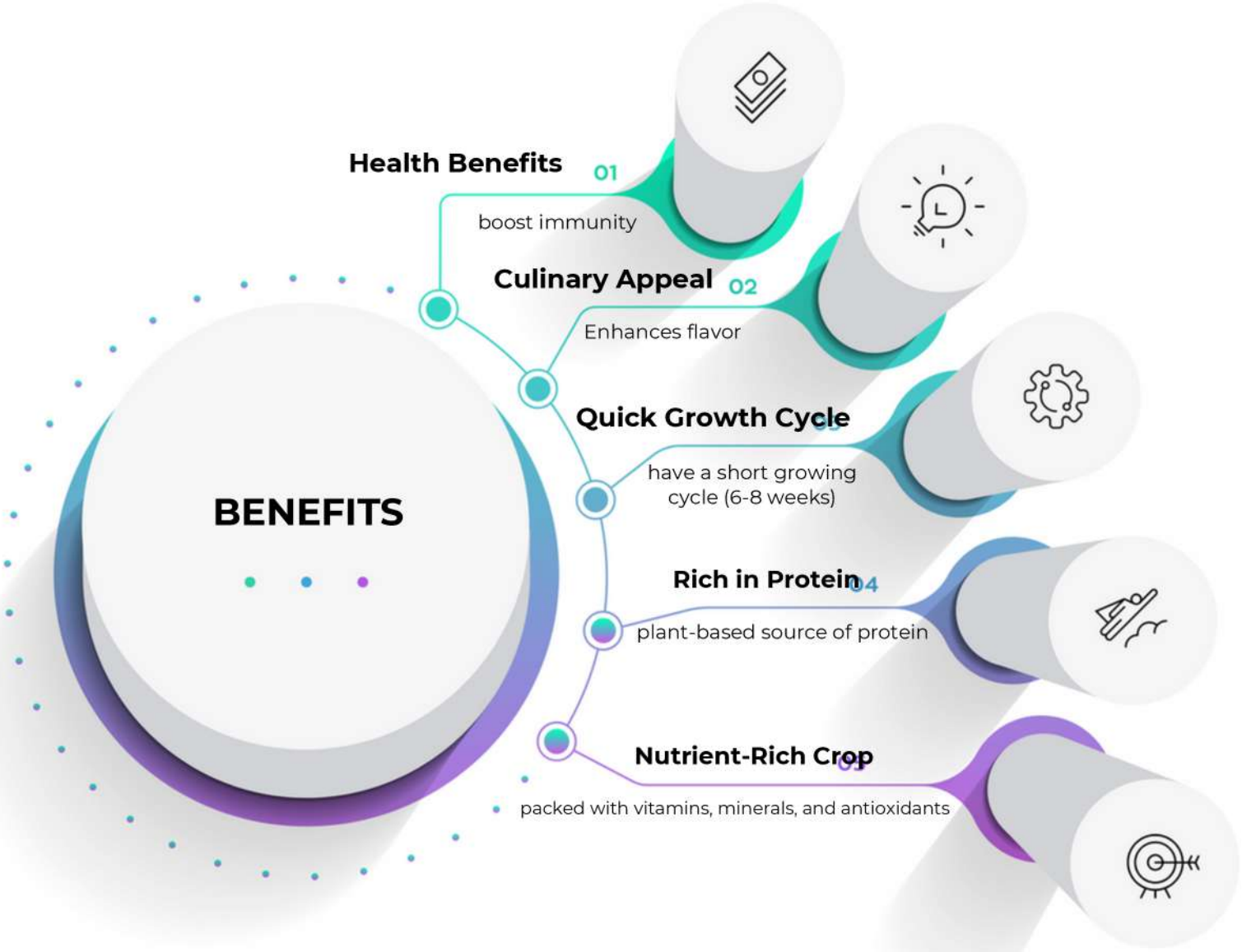
HI - TECH MUSHROOM FARMS

- Mushrooms are highly valued edible fungi, known for their nutritional and medicinal benefits

- Specialty mushrooms such as oyster, shiitake, and Reishi are seeing growing demand due to their health-promoting properties.”

- India’s annual mushroom production stands at 1.45 lakh tons, with button mushrooms accounting for 85% of India's market share, while the global demand is approximately 120 lakh tons.

  Price of Button mushroom ranges from **Rs.100-200 per kg**



Global Demand

59 billion

125 billion

Domestic Demand

1,176 million

2,722 million

2023 → 2030

Reasons for Growing Mushrooms

- Growing Market Demand
- High Profitability Potential
- Less Time Consuming

KEY PARAMETERS

Factors that influence growth of mushroom

Temperature

Ideal growth temperatures for mycelium are 22-24°C, while fruiting requires cooler conditions of 16-18°C to promote optimal development and fruit body formation.

Humidity

Mushrooms thrive in high humidity. During mycelium colonization, 85-90% humidity is required, and 90-95% during the fruiting phase to prevent dehydration and support healthy growth.

CO2 Levels

High CO2 levels (up to 25,000 ppm) are tolerated during mycelium colonization. However, for proper fruiting, CO2 levels must be kept below 1,000 ppm to ensure good air quality and to encourage mushroom development.

Lights

Mushrooms do not need light for growth, but low-intensity light (100-200 lux) during the fruiting stage for about 12-14 hours daily can trigger fruiting and improve the quality of the mushrooms.

Ventilation

Adequate ventilation is necessary for removing excess CO2 and ensuring fresh air supply. Poor airflow can lead to unhealthy growth conditions and reduced fruiting.

Types of refrigeration system

COLD ROOM UNITS MODEL

It consist of indoor and outdoor units without ducting . They are suitable to maintain temp. only and is difficult to control other parametres

PROS

- Low initial Cost
- Suitable for small farms
- Easy to install
- Occupies less space

CONS

- Difficult to maintain humidity
- Less yield & Produces mostly B grade quality
- Consumes more energy
- Not ideal where quality is concern
- Uneven Air & Temp distribution
- High chances of breakdown

AHU MODEL - DX SYSTEM

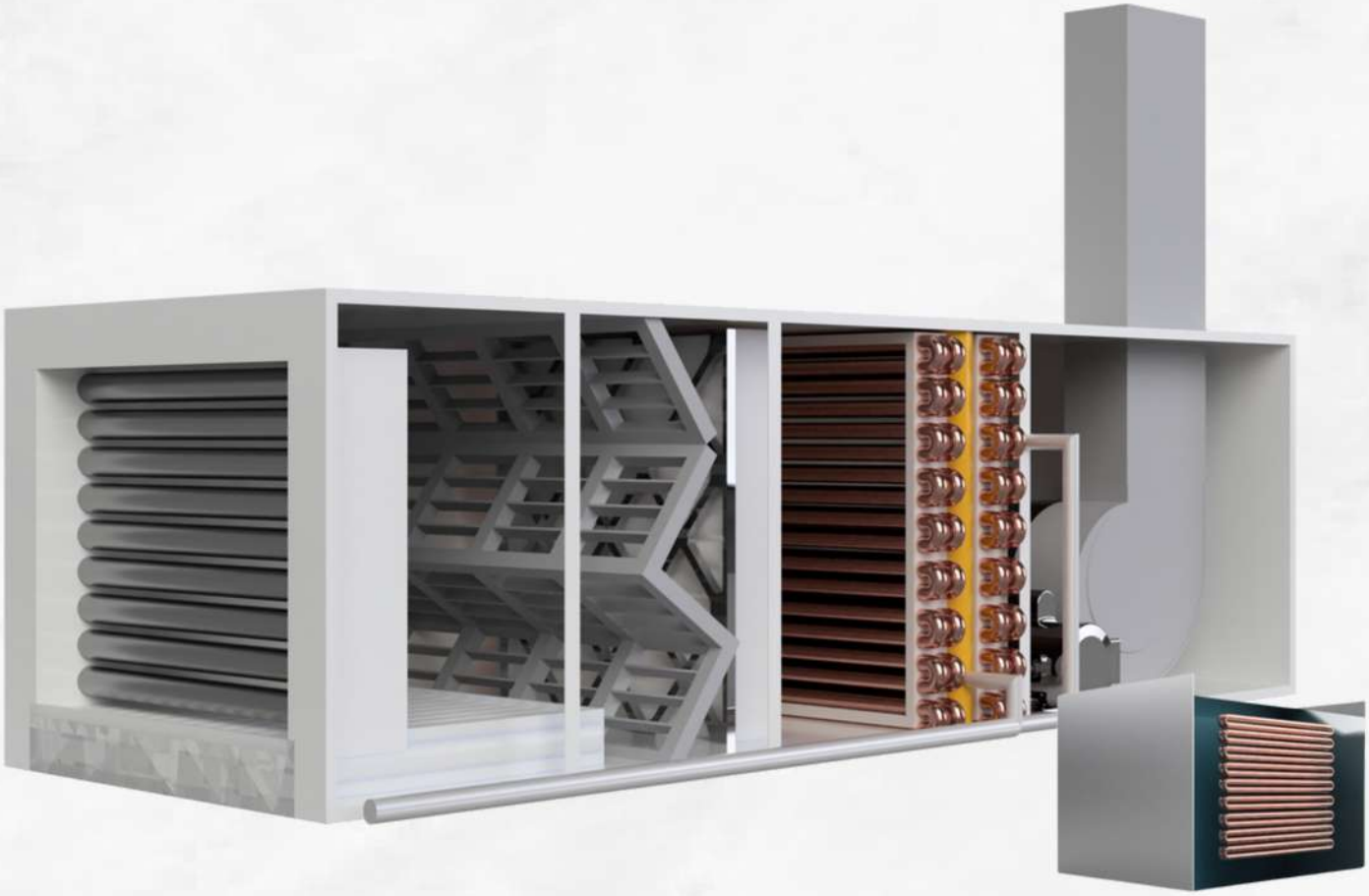
A refrigeration system where refrigerant directly cools air via evaporator coils inside the Air Handling Unit (AHU). It operates with an outdoor condensing unit and indoor DX coil

PROS

- Better Air & Temp Circulation
- Easy to monitor and manage parametres like humidity and co2
- Produces more yield than cold room units
- Better Efficiency than cold room units
- suitable where quality is concern

CONS

- Expensive than cold room units
- Ducting requires more space
- Have to rely on external humidifier for humidity beyond 80%



AHU MODEL - CHILLED WATER SYSTEM

A centralized refrigeration system where chilled water (7–12°C) circulates through coils in Air Handling Units (AHUs) to cool and humidify air.

PROS

- Internationally adopted model
- Uniform Air & Temp Circulation
- Easily maintain humidity upto 90%
- Easy to monitor and manage parametres like humidity and co2
- Produces best yields compared to other models
- Better Efficiency and energy savings
- Very long life and less chances of breakdown

CONS

- Expensive Compared to other models
- Ducting requires more space
- Extra tank and cooling coils need more space

OUR SOLUTION

Refrigeration Equipments
Customised as per the cooling requirements

Insulation Panels
Customised as per room dimensions

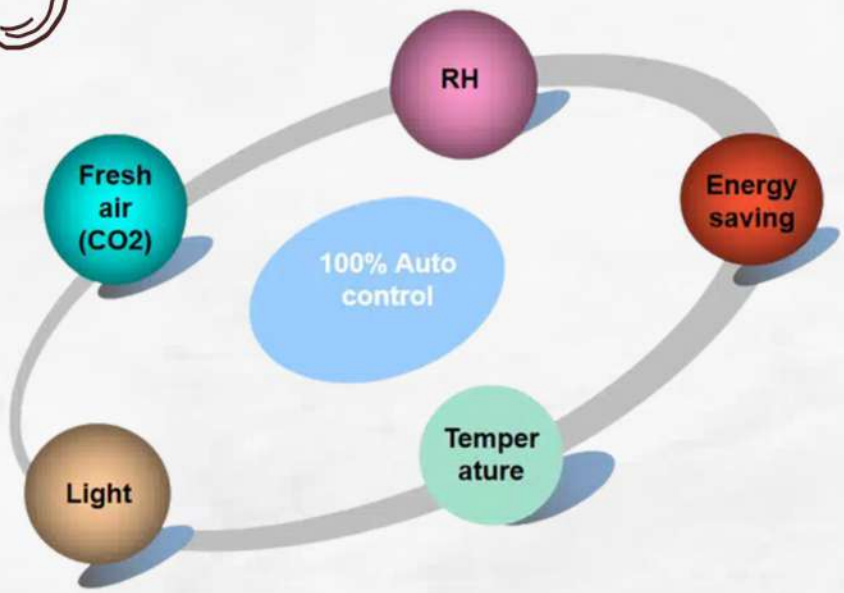
Humidifier / Fogging System
Inbuild/external depending upon the requirements

7 Inch Touch Screen PLC Control
With advance automation and real time monitoring & Analysis

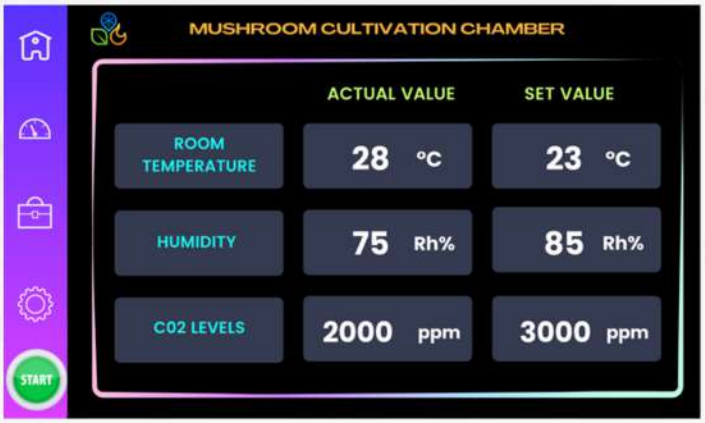
Complete Sensors
Temperature, Humidity, CO2 - 50,000 ppm

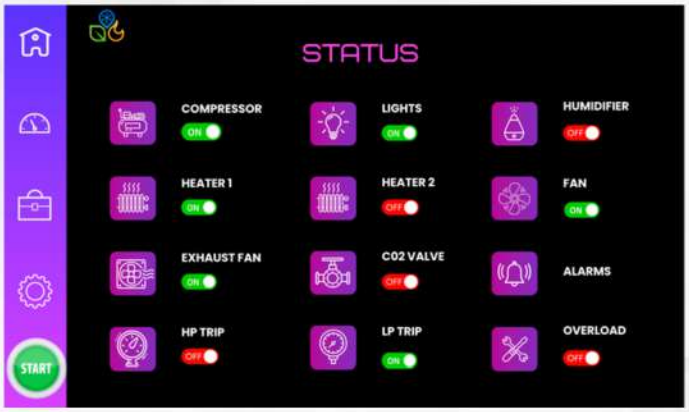
Real Time Data monitoring
Can monitor and control from mobile or laptop

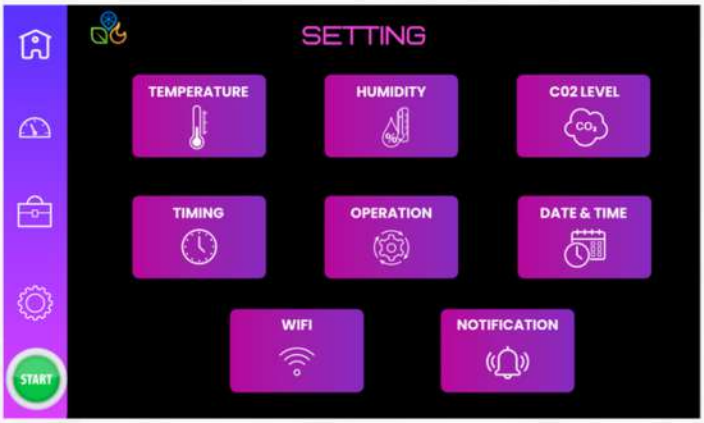
Complete Automation
Automatic control of systems like Indoor units , Humidifier , Lights , C02 Valve , exhaust Fan etc


RH
Fresh air (CO2)
Energy saving
100% Auto control
Temper ature
Light


MUSHROOM CULTIVATION CHAMBER
PASSWORD
START
DESIGNED BY : DOSAJH INDUSTRIES PVT LTD


MUSHROOM CULTIVATION CHAMBER
ACTUAL VALUE
SET VALUE
ROOM TEMPERATURE
28 °C
23 °C
HUMIDITY
75 Rh%
85 Rh%
C02 LEVELS
2000 ppm
3000 ppm
START


STATUS
COMPRESSOR
LIGHTS
HUMIDIFIER
HEATER 1
HEATER 2
FAN
EXHAUST FAN
C02 VALVE
ALARMS
HP TRIP
LP TRIP
OVERLOAD
START


SETTING
TEMPERATURE
HUMIDITY
C02 LEVEL
TIMING
OPERATION
DATE & TIME
WIFI
NOTIFICATION
START

CONTACT US

Phone	+91 9625777543 +91 9811590436
Website	www.dosajh.com www.dosajhindustries.in www.dosajhindustries.com
Email	info@dosajh.com dosajhindustries@gmail.com
Head Office	C-6 , Dsiidc Engineering Complex Mangolpuri Industrial Area , Ph-1 New Delhi - 110083
Factory	1519 , IMT Kharkhoda Industrial Area Haryana - 131402