

Title of the Technology: Mushroom millets Nutri-bar

General Part-1

Technology Code:- :

Organization Details.

Subject Matter Division : Horticultural Science

Organization Name : ICAR-Directorate of Mushroom Research ,Solan

Regional Station if any : : Not Applicable

AICRP name if any :
(AICRP)

Principal Inventor : Anuradha Srivastava

Principal Inventor
Designation: Scientist (Food Technology)

Principal Inventor Email : Anuradha.Srivastava@icar.gov.in

Principal Inventor
Address : ICAR-Directorate of Mushroom Research, Chambaghat, Solan (HP)

Details of Inventors.

Principal Inventor : Anuradha Srivastava

Principal Inventor
Designation: : Scientist (Food Technology)

Principal Inventor Email : Anuradha.Srivastava@icar.gov.in

Principal Inventor
Address : ICAR-Directorate of Mushroom Research, Chambaghat, Solan (HP)

Co-Inventor Name : Dr. Ved Prakash Sharma)

Co-Inventor Email : vpsharma93@gmail.com

Technology Name : Mushroom millets nutri-bar



Technology Details.

Major resource : Product and Process

Minor Subject Classification : Agriculture

Minor Subject Sub Classification : Agricultural research

Technology Group : Product technology

Technology Related To : Novel mushroom product industry

Complete Details of Technology: Snack foods which are available in the market now a days are not healthy and there is an increasing demand from consumers for nutritious snacks. This has inspired the development of this mushroom millet nutri-bar to provide nutrition and convenience. Nutri-bar is a convenient and healthy ready-to-eat food item, which provides all the essential nutrients (protein, fat, minerals, vitamins, calories and carbohydrate) in balanced amount and abates hunger. Process for preparing a healthy and nutritious mushroom millets nutri-bar was optimized combining oyster mushroom powder with two millets; finger millet (ragi) and sorghum (jowar) puffs and flakes. Ingredients used for preparation of this nutri-bar are; oyster mushroom powder (10%), sorghum flakes, finger millet puffs, finger millet flakes, dry fruits, flaxseed, oats, honey, dates and chia seeds. This nutri-bar showed nutritional composition of 17.75% protein, 9.27% fat, 76.12% carbohydrate, 25.48% dietary fiber, 182.5 mg/100g calcium, 2.89 mg/100g iron, 11.41mg Vitamin D/100g and energy value of 355 Kcal/100g and was found particularly rich in protein, fiber, Vitamin D and calcium. The shelf life of mushroom millet nutri-bar was determined to be 3 months at room temperature.

Brief Description of Technology Including Salient Features:

Mushroom millet nutri-bar prepared with oyster mushroom powder (10%), sorghum flakes, finger millet puffs, finger millet flakes, dry fruits, flaxseed, oats, honey, dates and chia seeds showed good sensory acceptability and were rich in protein (17.75%), dietary fiber (25.48%), Vitamin D (11.41mg) and calcium (182.5 mg/100g). The shelf life of mushroom millet nutri-bar was 3 months at room temperature.

Benefits/Utility :

Mushroom millets nutria-bars are nutritionally rich and healthy snack food item which will combine the good qualities of both mushrooms and millets and will provide new avenues for healthy snack food industry. Being rich in protein and Vitamin D, this mushroom millet nutri-bar can be a healthy and nutritious snacking option for people of all age groups and will help in alleviating protein-energy malnutrition and vitamin D deficiency.

Precaution With The Technology

Oyster mushroom should be dried properly at controlled temperature of 50°C to preserve the nutritional and sensory qualities of mushroom powder. Mushroom millet nutri-bar should be packed in airtight packs flushed with inert gas in order to preserve the quality and to prevent rancidity of the product.

Impact, If Adopted

Social Impact

With increasing urbanization and improving health awareness, there is a need of convenient and nutritious snack food items. This mushroom millets nutri-bar will provide one such wholesome, convenient and tasty snacking option to consumer and will further help in improving the nutritional status and general health of the population.

TargetUsers/Stake holders : Mushroom entrepreneurs interested in development of healthy and nutritious snack items

Technology Contact.

Name : Director

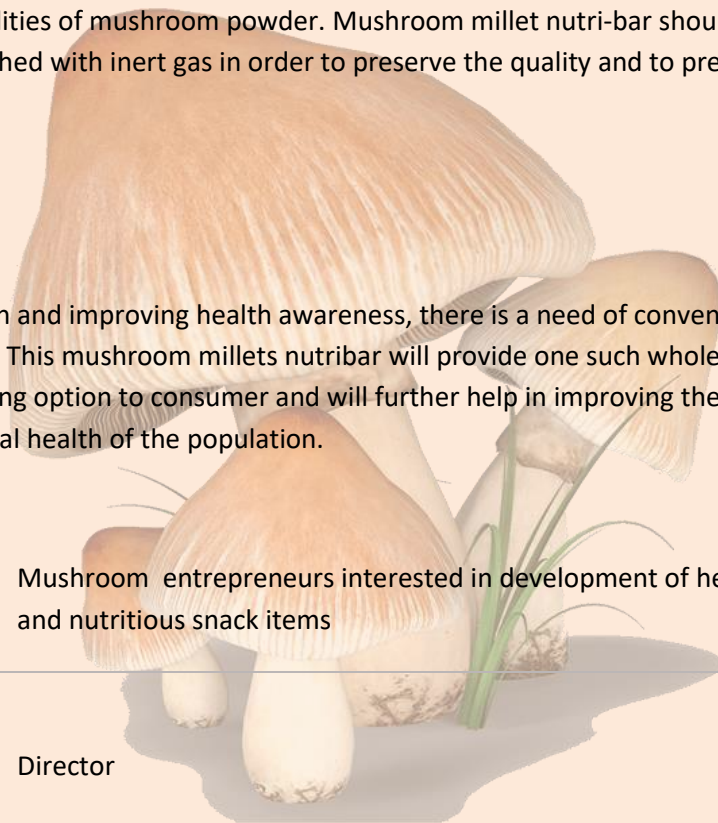
Email : director.mushroom@icar.gov.in

Phone Number : 01792-230451

Fax Number : 01792-231207

Address : ICAR-Directorate of Mushroom Research,Chambaghat,Solan,Solan-173213

Keyword for Technology : Mushroom, millets, nutri-bar, healthy, snack



Technology Development Details Part-2

Project Details : Development of mushrooms and millets based value added products
(Through which technology was developed) (Project code- DMR-2019-2)

Technology Validated by : Institute

Technology Validation
Details.

Subject Matter Division : Horticultural Science

Organization Name(if within ICAR) : ICAR-Directorate of Mushroom Research,Solan

Organization Name(if outside ICAR,Please enter) : --

Year of Release/Adoption(YYYY) : 2020

Country : India

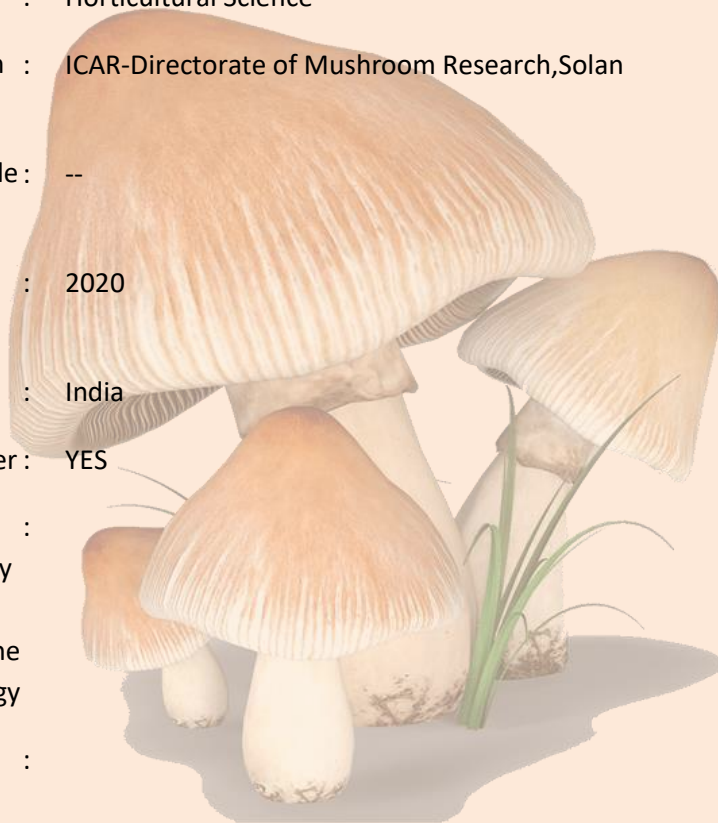
Through Technology Transfer : YES

Is There Any Other Process/Product/Technology that Is Critical Or Contributes To The Successful Use Of Technology

Minimum Temperature :

Maximum Temperature :

Average Temperature :



Applies To(Regional Differentiation)Inform Part-3

Location.

Zone(As per the planning commission) : Not Applicable

Sub zone(As per the planning commission) : Not Applicable

AgroEcological Zone(NBSS & LUP) : Not Applicable

AgroEcological Sub Zone(NBSS & LUP) : Not Applicable

State Name : Not Applicable

District Name : Not Applicable

Soil Type/Resource Type.

Soil Order :

Soil Sub Order :

Soil great group :

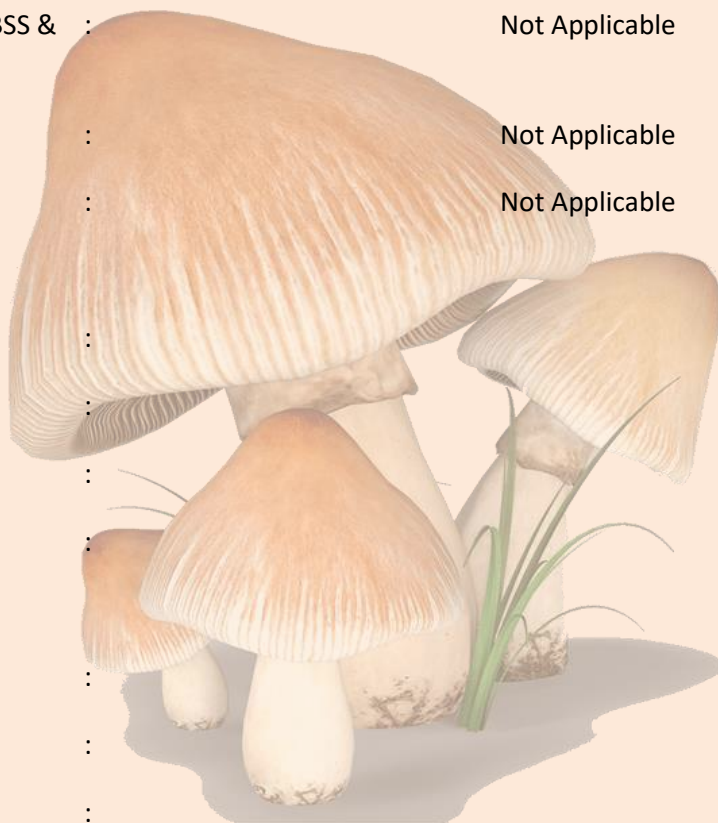
Soil great sub group :

Commodity Details.

Commodity :

Commodity Type :

Commodity Name :



Publication Related To Technology Part-4