

ISBN: 978-93-91768-00-3

# **Agriculture Science: Research and Review Volume V**

**Editors**

**Dr. Rajendra V. Salunkhe**

**Dr. Gargi Goswami**

**Mr. Vivek Kumar Patel**

**Mr. Kumar Chiranjeeb**



**First Edition: 2022**

**First Edition: June, 2022**

**ISBN: 978-93-91768-00-3**



**© Copyright reserved by the Editor**

Publication, Distribution and Promotion Rights reserved by Bhumi Publishing, Nigave Khalasa, Kolhapur

Despite every effort, there may still be chances for some errors and omissions to have crept in inadvertently.

No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the publishers.

The views and results expressed in various articles are those of the authors and not of editors or publisher of the book.

Published by:

Bhumi Publishing,

Nigave Khalasa, Kolhapur 416207, Maharashtra, India

Website: [www.bhumipublishing.com](http://www.bhumipublishing.com)

E-mail: [bhumipublishing@gmail.com](mailto:bhumipublishing@gmail.com)

Book Available online at:

<https://www.bhumipublishing.com/books/>



## CONTENT

Sr. No.	Book Chapter and Author(s)	Page No.
1.	<b>MANAGEMENT OF MAJOR LAC HOST FLORA AND LAC CULTIVATION</b> Devendra Singh Porte and Pushpraj Singh	1 - 11
2.	<b>ROLE OF LEGUMES IN MAINTAINING AGRICULTURAL AND ENVIRONMENTAL SUSTAINABILITY</b> Shivani Ranjan, Sumit Sow and D. K. Roy	12 - 21
3.	<b>MICRO PLASTICS IN SOIL ECOSYSTEM: TYPES, IMPACT ON SOIL PROPERTIES AND ITS REMEDIAL MEASURES</b> Kumar Chiranjeeb, Narender K. Sankhyan, Shivani and Chhaviraj Baghel	22 - 28
4.	<b>WOODAPPLE (<i>FERONIA LIMONIA S.</i>)</b> Pradeep Kumar, Om Prakash, Aranav Yadav, Suneel Kumar Patel, Surendra Kumar and Usha Shukla	29 - 40
5.	<b>AN OUTLINE OF PIG FARMING: A SOURCE OF LIVELIHOOD IN THE INDIAN CONTEXT</b> Devendra Singh Porte and Pushpraj Singh	41 - 47
6.	<b>CHEMICAL RESIDUES IN MEAT AND ITS PUBLIC HEALTH SIGNIFICANCE</b> Mukesh Gangwar, Shalu Swami, Apeksha Jangir, Pranav Chuahan and Deepali T. Sakunde	48 - 56
7.	<b>FOOD WASTAGE: A THOUGHT BEFORE EAT</b> Anusha A Thakkannawar and Nataraj A Durgannavar	57 - 65
8.	<b>OPPORTUNITIES AND SCOPE OF AGRI-ENTREPRENEURSHIP IN INDIA</b> Berjesh Ajrawat and Anamika Jamwal	66 - 73
9.	<b>STUDY ON WEED SPECIES IN SPRING MUNGBEAN UNDER TARAI REGION OF UTTARAKHAND</b> Gargi Goswami, Chandra Bhushan and Arunima Paliwal	74 - 77

## **MANAGEMENT OF MAJOR LAC HOST FLORA AND LAC CULTIVATION**

**Devendra Singh Porte and Pushpraj Singh**

Department of Rural Technology and Social Development,  
Guru Ghasidas Vishwavidyalaya (A Central University),  
Bilaspur-495009, Chhattisgarh, India

\*Corresponding Author E-mail: [portedevedra26@gmail.com](mailto:portedevedra26@gmail.com)

### **Abstract:**

Lac has gained popularity in recent years as a result of its wide range of applications and biodegradable nature. Lac is in high demand all over the world. In India, the Indian lac insect, *Kerria lacca* (Kerr.), is the most commonly used insect for lac production. It is sedentary, phytosuccivorous, and feeds on the phloem sap of specific host plants, such as Palas (*Butea monosperma*), Kusum (*Schleichera oleosa*), Ber (*Zizyphus mauritiana*), *Flemingia semialata*, *Ficus* spp., etc. Indian lac is regarded as having the highest quality in the world. To meet the growing global demand, lac farming and productivity must be increased at the local level. Lac farming provides supplementary income to mainly poor subsistence level tribal farmers in the country's forest tracts. Lac has been one of the most important non-wood forest products used by human society since time immemorial. The present article will provide a complete knowledge about the management of major host flora of lac insects for improved lac cultivation.

**Keywords:** Lac insect, host flora, tree selection, canopy management

### **Introduction:**

Lac has gained popularity in recent years as a result of its wide range of applications and biodegradable nature. Lac is in high demand all over the world. Lac exports totaled 6339 tonnes in 2010-11, while productions total 17900 tonnes in 2011-12. Indian lac is regarded as having the highest quality in the world. To meet the growing global demand, lac production and productivity must be increased at the local level. Lac farming provides supplementary income to mainly poor subsistence level tribal farmers in the country's forest tracts. Lac has been one of the most important non-wood forest products used by human society since time immemorial. It contributes a small but significant amount to the country's foreign exchange earnings, but the lac's most important role in the economy is that it provides a secondary income to roughly 3-4 million tribal people, who are the socioeconomically weakest segment of the Indian population.

ISBN: 978-93-91768-00-3

# **Agriculture Science: Research and Review Volume V**

**Editors**

**Dr. Rajendra V. Salunkhe**

**Dr. Gargi Goswami**

**Mr. Vivek Kumar Patel**

**Mr. Kumar Chiranjeeb**



**First Edition: 2022**

**First Edition: June, 2022**

**ISBN: 978-93-91768-00-3**



**© Copyright reserved by the Editor**

Publication, Distribution and Promotion Rights reserved by Bhumi Publishing, Nigave Khalasa, Kolhapur

Despite every effort, there may still be chances for some errors and omissions to have crept in inadvertently.

No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the publishers.

The views and results expressed in various articles are those of the authors and not of editors or publisher of the book.

Published by:

Bhumi Publishing,

Nigave Khalasa, Kolhapur 416207, Maharashtra, India

Website: [www.bhumipublishing.com](http://www.bhumipublishing.com)

E-mail: [bhumipublishing@gmail.com](mailto:bhumipublishing@gmail.com)

Book Available online at:

<https://www.bhumipublishing.com/books/>



## CONTENT

Sr. No.	Book Chapter and Author(s)	Page No.
1.	<b>MANAGEMENT OF MAJOR LAC HOST FLORA AND LAC CULTIVATION</b> Devendra Singh Porte and Pushpraj Singh	1 - 11
2.	<b>ROLE OF LEGUMES IN MAINTAINING AGRICULTURAL AND ENVIRONMENTAL SUSTAINABILITY</b> Shivani Ranjan, Sumit Sow and D. K. Roy	12 - 21
3.	<b>MICRO PLASTICS IN SOIL ECOSYSTEM: TYPES, IMPACT ON SOIL PROPERTIES AND ITS REMEDIAL MEASURES</b> Kumar Chiranjeeb, Narender K. Sankhyan, Shivani and Chhaviraj Baghel	22 - 28
4.	<b>WOODAPPLE (<i>FERONIA LIMONIA S.</i>)</b> Pradeep Kumar, Om Prakash, Aranav Yadav, Suneel Kumar Patel, Surendra Kumar and Usha Shukla	29 - 40
5.	<b>AN OUTLINE OF PIG FARMING: A SOURCE OF LIVELIHOOD IN THE INDIAN CONTEXT</b> Devendra Singh Porte and Pushpraj Singh	41 - 47
6.	<b>CHEMICAL RESIDUES IN MEAT AND ITS PUBLIC HEALTH SIGNIFICANCE</b> Mukesh Gangwar, Shalu Swami, Apeksha Jangir, Pranav Chuahan and Deepali T. Sakunde	48 - 56
7.	<b>FOOD WASTAGE: A THOUGHT BEFORE EAT</b> Anusha A Thakkannawar and Nataraj A Durgannavar	57 - 65
8.	<b>OPPORTUNITIES AND SCOPE OF AGRI-ENTREPRENEURSHIP IN INDIA</b> Berjesh Ajrawat and Anamika Jamwal	66 - 73
9.	<b>STUDY ON WEED SPECIES IN SPRING MUNGBEAN UNDER TARAI REGION OF UTTARAKHAND</b> Gargi Goswami, Chandra Bhushan and Arunima Paliwal	74 - 77

**AN OUTLINE OF PIG FARMING: A SOURCE OF LIVELIHOOD IN THE  
INDIAN CONTEXT**

**Devendra Singh Porte\* and Pushpraj Singh**

Department of Rural Technology and Social Development,  
Guru Ghasidas Vishwavidyalaya (A Central University),  
Bilaspur-495009, Chhattisgarh, India

\*Corresponding Author E-mail: [portedevedra26@gmail.com](mailto:portedevedra26@gmail.com)

**Abstract:**

Pigs are an important part of the Indian livestock industry. Pigs are typically raised by economically disadvantaged members of society, and they not only provide better nutritional support but also serve as a valuable source of income. Pigs can meet the needs of the weaker members of society as a low-cost source of healthy animal protein. In India, six different pig breeds have been recognised. The larger population of nondescript pigs, on the other hand, has lower production ability and provides a meagre return to the farmers. However, proper cross-breeding programmes have increased the popularity of pig rearing, as has the development of popular and locally acceptable new breeds by crossing desi pigs with high-yielding exotic breeds. An increase in demand has resulted from an increase in pork consumption in India's cities and a greater acceptance of pig meat by society. To meet this demand and eliminate the production shortfall, a more detailed examination of the pig population and the state of pig farming at the village level will aid in the development of new schemes.

**Keywords:** Pig, rearing, husbandry, breeds, livelihood

**Introduction:**

The majority of pigs in India are raised in small-scale subsistence-based production systems. Pigs in low-input systems provide farmers with value-added output by consuming feed that would otherwise go to waste. Smallholder farming systems help the poorest people improve their livelihoods and food security. Pigs are often one of the main sources of cash income in rural areas and provide manure for cropping, in addition to providing protein for human consumption. It also serves as a financial safety net in times of distress, as well as contributing to community cultural traditions. Pig production, in particular, promotes greater self-sufficiency, increases incomes, and provides greater food security to urban households. Smallholder pig rearing



ISBN: 978-93-91768-01-0

# **Frontiers in Life Science**

## **Volume VI**

### **Editors**

**Dr. Shakun Mishra**

**Dr. Balaji Rajbhoj**

**Dr. Suchita C. Warangkar**

**Dr. Sujith R.**



  
*Dhuni Publishing*

**First Edition: 2022**

**First Edition: June - July, 2022**

**ISBN: 978-93-91768-01-0**



**© Copyright reserved by the Editor**

Publication, Distribution and Promotion Rights reserved by Bhumi Publishing, Nigave Khalasa, Kolhapur

Despite every effort, there may still be chances for some errors and omissions to have crept in inadvertently.

No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the publishers.

The views and results expressed in various articles are those of the authors and not of editors or publisher of the book.

Published by:

Bhumi Publishing,

Nigave Khalasa, Kolhapur 416207, Maharashtra, India

Website: [www.bhumipublishing.com](http://www.bhumipublishing.com)

E-mail: [bhumipublishing@gmail.com](mailto:bhumipublishing@gmail.com)

Book Available online at:

<https://www.bhumipublishing.com/books/>



## CONTENT

Sr. No.	Book Chapter and Author(s)	Page No.
1.	<b>INNOVATIONS, TECHNIQUES AND MODERN BIOTECHNOLOGY INCLUDING GENETIC ENGINEERING PLANT TISSUE CULTURE IN <i>MENTHA ARVENSIS</i></b> Mandalaju Venkateshwarlu	1 - 15
2.	<b>A STUDY ON IMPACT OF STRESS ON EATING BEHAVIOUR AMONG IT EMPLOYEES</b> M. Sivasakthi and G. Ramya	16 - 22
3.	<b>RECENT TRENDS AND ROLE OF CHOLINERGIC TRANSMISSION IN ADVANCED PHARMACOLOGY</b> Anamika P. K., Deborshi Nath, Fahad Aziz Bhat, Jubilee Santhosh and Jayanth N	23 - 33
4.	<b>PANDEMIC OF COVID-19 AND THE SERICULTURAL ENTERPRISE</b> Vitthalrao B. Khyade	34 - 46
5.	<b>POST-TRANSLATIONAL MODIFICATIONS (PTMS)</b> Surendra Kumar, Aranav Yadav and Ankitesh Kumar	47 - 54
6.	<b>FRESH WATER FISH FAUNA OF PANZARA AND KAN RIVERS OF SAKRI TAHSIL, MAHARASHTRA (INDIA)</b> S. S. Bhoi	55 - 62
7.	<b>HYBRID RENEWABLE ENERGY SYSTEM FOR NATURAL RESOURCE CONSERVATION</b> K. Suganya, R. Jayashree, R. Rizam and P. Bhavani	63 - 73
8.	<b>ABATING ETHNO MEDICINAL KNOWLEDGE</b> Manohara Acharya, Ravindra B. Malabadi and Rajukrishna Chalannavar	74 - 78
9.	<b>HEALTH MANAGEMENT PRACTICES FOR SOME IMPORTANT VIRAL POULTRY DISEASES</b> Devendra Singh Porte and Pushpraj Singh	79 - 91
10.	<b>CHILD HEALTH AND NUTRITION IN INDIA</b> Shashi A. Mishra	92 - 96

## **HEALTH MANAGEMENT PRACTICES FOR SOME IMPORTANT VIRAL POULTRY DISEASES**

**Devendra Singh Porte\* and Pushpraj Singh**

Department of Rural Technology and Social Development,  
Guru Ghasidas Vishwavidyalaya (A Central University),  
Bilaspur-495009, Chhattisgarh, India

\*Corresponding Author E-mail: [portedevedra26@gmail.com](mailto:portedevedra26@gmail.com)

### **Abstract:**

In the last half century, significant increases in the productivity of modern poultry stocks have been achieved for both the meat and the egg production sectors of the global poultry industry. Improvements in poultry management and housing, nutrition, ration formulation, the use of poultry genetics in commercial breeding programmes, and improved diagnosis and control of avian diseases have all led to synergies. The health and disease of poultry can be the least predictable of all these essential components.

Although poultry diseases from nutritional and metabolic causes, the focus of this information note is on minimizing diseases brought on by infectious agents, which can have detrimental and sometimes immediate negative effects on the effectiveness of commercial processes. Although poultry diseases from nutritional and metabolic causes can be have concern. The development of an intensive poultry industry in many of the countries discussed here depends on the growth in number and size of small and medium-sized commercial poultry operations. Therefore, the main focus of this review is on elevating poultry health for operations of this size. However, the effects on poultry health for and from such flocks are also included due to the significance of small-scale, village-based production units in many developing countries.

**Keywords:** Viral diseases, immunization, disease symptoms disease control

### **Introduction:**

Agriculture is the backbone of the rural economy. It also has a significant impact on the national economy, contributing 13–16 percent of GDP. The number of people who keep chickens in their homes is not known with precision. The estimated agricultural households are all thought to be involved in small-scale domestic poultry production using native chickens in various parts of the nation depending on climatic conditions. Natural selection primarily favours regional or native breeds when it comes to the chickens raised in free-range and backyard

ISBN: 978-93-91768-78-2

**Advances in Literature,  
Social Science,  
Commerce and Management**



**Editors**

**Dr. Jyoti S. Pattanshetti**

**Dr. Pushpalata Trimukhe (Kawale)**

**Dr. Sapna Kasliwal**

**Dr. Binti Dua**

**Bhumi Publishing**

**First Edition: 2022**

**First Edition: June, 2022**

**ISBN: 978-93-91768-78-2**



**© Copyright reserved by the Editor**

Publication, Distribution and Promotion Rights reserved by Bhumi Publishing, Nigave Khalasa, Kolhapur

Despite every effort, there may still be chances for some errors and omissions to have crept in inadvertently.

No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the publishers.

The views and results expressed in various articles are those of the authors and not of editors or publisher of the book.

Published by:

Bhumi Publishing,

Nigave Khalasa, Kolhapur 416207, Maharashtra, India

Website: [www.bhumipublishing.com](http://www.bhumipublishing.com)

E-mail: [bhumipublishing@gmail.com](mailto:bhumipublishing@gmail.com)

Book Available online at:

<https://www.bhumipublishing.com/books/>



10.	<b>SUCCESSFUL POULTRY BUSINESS AND MARKETING STRATEGY</b> Devendra Singh Porte and Pushpraj Singh	86 - 92
11.	<b>RETHINKING UTTARAKHAND TOURISM INDUSTRY IN PANDEMIC COVID-19 PERIOD</b> Shalini Singh	93 - 108
12.	<b>ALTERNATIVE APPROACH: COMMUNITY CONSTRUCTIVE PROGRAMMES AND HIND SWARAJ</b> Shashi A. Mishra	109 - 112
13.	<b>INNOVATIVE SOURCES OF BUSINESS FINANCE</b> Sanya Ahuja	113 - 124
14.	<b>AGRICULTURAL ECONOMICS</b> Sanya Ahuja	125 - 134
15.	<b>SIGNIFICANCE OF EMOTIONAL INTELLIGENCE FOR HR MANAGER</b> Amita Arora, Manish Kumar and Ishika Mittal	135 - 139
16.	<b>DIMENSIONS OF INTERNATIONAL HUMAN RESOURCE MANAGEMENT</b> Amita Arora and Lakshay Kumar	140 - 145
17.	<b>EXPLORING PARENTAL ATTACHMENT AND MENTAL WELL-BEING OF ADOLESCENTS: TRACING THE ORIGIN OF ATTACHMENT</b> Sampurna Guha and Nimisha Beri	146 - 155
18.	<b>QUALITY TEACHING AND QUALITY LEARNING PARADIGMS OF EDUCATION IN URBAN AREA</b> Binti Dua	156 - 163
19.	<b>A STUDY OF INDIA'S CURRENT DEMOGRAPHIC STATUS AND ITS IMPLICATIONS ON SOCIO- ECONOMIC DEVELOPMENT</b> Divya Nigam	164 - 170
20.	<b>RISK OF SELECTED INDIAN BANKING AND PSU DEBT MUTUAL FUNDS: A REVIEW</b> Sunil M. Adhav	171 - 175

## SUCCESSFUL POULTRY BUSINESS AND MARKETING STRATEGY

Devendra Singh Porte\* and Pushpraj Singh

Department of Rural Technology and Social Development,

Guru Ghasidas Vishwavidyalaya (A Central University),

Bilaspur-495009, Chhattisgarh, India

\*Corresponding author E-mail: [portedevedra26@gmail.com](mailto:portedevedra26@gmail.com)

### Abstract:

Poultry farming in India, regardless of numerous constraints, has improved substantially over the last decade. Poultry production in India became restrained to backyards until recently. Local breed of birds had been reared for the deliver of eggs and meat. The growing call for for poultry merchandise necessitates augmenting the deliver via way of means of uploading stepped forward breeds of hen. In 1961, the percentage of hybrid populations' with inside the general populace of hen became approximately 2 percentages. Within multiple decades, those birds have ruled the marketplace sidelining the indigenous birds. The technological advances have revolutionized the function and the shape of poultry enterprise in India. It has become one of the maximum specialised organizations in lots of components of the country. A preferred self belief has been created the various human beings that inexperienced revolution has ushered a technology of self-reliance with inside the food grain production. The hastily developing populace has created a few doubts with inside the stated hypothesis. In fact, crop production by itself might not clear up the food trouble of the country. The advances in cereal technology, of course, can fill the empty stomach; however it is able to now no longer assist with inside the balanced boom of the human body. The leader substances of balanced food regimen additionally incorporate proteins, fats, minerals and nutrients, which can be crucial for boom. The deliver of those gadgets can without difficulty be elevated via elevated production of livestock merchandise.

**Keywords:** Poultry business, poultry products, marketing strategy, source of economy

### Introduction:

The poultry enterprise in India represents a prime fulfilment story. What became in large part a outdoor undertaking earlier than the Nineteen Sixties has been converted right into a colourful agribusiness with an annual turnover of Rs 30 000 crores (Basic Animal Husbandry Statistics, 2012). Today, India is the 0.33 biggest egg producer around the world and the 19<sup>th</sup>