



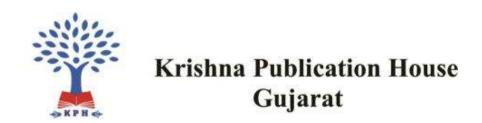
# One Day International Seminar on "Ensuring Health & Nutritional Security Through Nutri- Sensitive Agriculture During Pandemic"

Organised by

**University Department of Home Science L. N. Mithila University, Darbhanga** 

Organizing Secretary

Dr. Pragati



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1.	Ensuring Health & Nutritional security through Nutri- sensitive Agriculture during Pandemic
	Prof. Usha Singh & Dr Pragati1
2.	Nutrition- Sensitive Intervention: Linking Appropriate Technologies for Nutritional Security
	Prof. Rekha Sinha7
3.	<b>Physical and Mental well-being during Pandemic</b> Mrs Rimjhim Modi14
4.	Nutrition during Pandemic (Covid 19) & Nutrition security with kitchen/Home Gardening
	Mrs. Anila Hritu Samuel18
5.	Nutrition in our Children During the COVID-19 Pandemic Dr. Niru Prasad24
6.	Role of Immunity Booster Diets and COVID-19 Pandemic Dr. Sanjeeta Rani31
7.	Millets- The Immune Booster Dr N. Chanda44
8.	COVID 19: Maintain your Health with Nutritious Diet Dr. Sweta Shree48
9.	Super Food Moringa Olifera: Nutritional Properties and Health Benefits
	Miss Kiran54
10.	Immunity Booster Diet and COVID-19 Pandemic Dr. Prity Kumari60
11.	<b>Ensuring Health and Nutritional Security Through Nutri- Sensitive Agriculture During Pandemic</b>
	Dr. Shashi Bala Uniyal69

<b>12.</b>	Moringa Oleifera: A Panacea to Combat M	alnutrition
	among Children Puja Kumari	72
13.	Immunity and Health Nainshi Kumari	82
14.	Nutritional Aspect with Reference to Fight CORO Dr. Aprajita	<b>)NA</b> 88
15.	Immunity Booster Diets and COVID-19 Pandemi Jyoti Prakash	<b>c</b> 95
16.	Immunity Booster Food: COVID-19 Mrs Rangoli Saxena, & Dr. Archna Gupta	97
17.	Role of life style and food intake in Overweight Women (A study in Patna, Bihar)	
18.	Mrs. Afshan Jaamal, & Dr. Bandana Singh  Development and Standardization of Blended To	105 <b>mato-Aloe</b>
	Vera (Aloe Succotrina) Leaves Chutney Kumari P, Prasad R & Gupta A	113
19.	Immunity booster diets and covid 19 pandemic Dr. Neelam Kumari	118
20.	Importance of Aquatic Nuts in Relation to Human during Covid-19 Pandemic	n Nutrition
	B. R. Jana, B.P. Bhatt & Anuradha Srivastava	125
21.	Role of Immunity during pandemic Dr. Seema Kumari	133
22.	Organic Farming: An Approach for Food & Security	Nutrition
	Madhumala Kumari	144

23.	Role of Immunity in Preventing COVID-19 Dr. Biswajit Paul & Dr. Manash Das	153
24.	Role of Nutrients for Faster Post COVID-19 Recove Mrs. Nikhat Parveen & Dr. Divya Rani Hansda	<b>ry</b> 160
25.	Optimal Nutrition to Fight against COVID-19 Dr. Shweta Priyadarshini	169
26.	Optimal Nutrition to Fight against COVID-19 Shweta Kumari	172
27.	Optimal Nutrition to Fight against COVID-19 Sonam Kumari & Ajay Kumar	181
28.	Tackle Malnutrition Among Children Through	Kitchen
	Garden Puja Kumari	185
29.	Ensuring Health and nutritional Safety Through Sa	afe Food
	<b>Practices in Indian Families</b> Vaishnavi Bhushan	196
30.		
	रोग प्रतिरोधक क्षमता बढ़ाने वाले अहार और कोविड—19 महामारी नेहा साहनी	204
		204
	नेहा साहनी	204
31.	नेहा साहनी रोग प्रतिरोधक क्षमता और स्वास्थ्य	
<ul><li>31.</li><li>32.</li></ul>	नेहा साहनी रोग प्रतिरोधक क्षमता और स्वास्थ्य डा0 सोनी कुमारी कोविड—19 से उत्पन्न समस्या एवं महिलाओं की चुनौतियाँ	211

35.	कोरोनावायरस रोक—थाम में प्रभावी इम्यून सिस्टमः एक अध्ययन डॉo कल्पना कुमारी	226
36.	भारत में जैविक कृषि, खाद्य सुरक्षा एवं संस्कृति के विविध सामाजिक आय	म 232
37.	प्रतिरोधी क्षमता वर्द्धक आहार और कोविड—19 महामारी माला कुमारी	237
38.	कोविड—19 महामारी से लड़ने में इम्यूनीटी बूस्टर डाइट की अहम भूमिका डॉ0 अर्चना कुमारी	243
39.	रोग प्रतिरोधक क्षमतावर्धक आहार एवं कोविड—19 डॉ0 स्नेह लता	248
40.	कोरोना वायरस से लड़ने में विटामिन डी की महत्ता डॉ. दिलीप कुमार ठाकुर	251
41.	प्रतिरोध क्षमता और स्वास्थ्य विजय लाल	255
42.	वर्त्तमान समय में बढ़ते महामारी को रोकने के लिए इम्युनिटी बुस्टर बढाने ब एवं आहार की भुमिका	गले उपाय
	सीमा कुमारी	257
43.	पोषक तत्व — तत्कालीन परिपेक्ष्य में प्रासांगिकता कंचन कुमारी	261
44.	इम्युनिटी एंड हेल्थ कंचन कुमारी कर्ण	264
45.	प्रतिरक्षा और स्वास्थ्य माला सिन्हा	265
46.	रोग प्रतिरोधक क्षमतावर्द्धक आहार और कोविड—19 महामारी डॉ0 ममता झा	268

47.	बच्चों को कोरोना वायरस से लड़ने में स्वस्थ और प्रतिरक्षा की भूमिका ममता कुमारी	271
48.	ग्रामीण स्तर पर केंद्रीय ग्रामीण स्वच्छता कार्यक्रम का प्रभाव एक विः	रलेषणात्मक
	अध्ययन रविणा कुमारी	274
49.	जैविकीय खेती और खाद्य सुरक्षा : एक विश्लेषणात्मक अध्ययन श्वेतम कुमारी	275
50.	कुपोषण का हल पोषण वाटिका सोनी कुमारी सिंह	279
51.	स्वस्थ्य रहने में महामारी के विरूद्ध इम्यूनिटी की भूमिका एरम जमा	283
52.	पारिवारिक संबंधों पर कोविड—19 के प्रभावों का विश्लेशण उर्वशी कोइराला	288
53.	संक्रमण बीमारियों को रोकने में इम्युनिटी बढ़ाने वाले आहार की भूमिका शादमीन फातमा	291
54.	बच्चों में पोषण और खाद्य सुरक्षा एक चुनौती प्रो. श्यामा चौधरी	296
55.	कोविड—19 महामारी में बच्चों की खाद्य सुरक्षा चिंता का विषय शिवांगी	300
56.	पोषण उद्यानः खाद्य सुरक्षा और विविधता के लिए एक सतत मॉडल रघुबर प्रसाद सिंह & नेहा	304

# **Optimal Nutrition to fight against COVID-19**

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We are in a country where people are more concern about taste than nutrition, those who are prosperous. Another segment of Population is struggling for one time meal, the concept of nutrition is beyond their imagination. Considering all these scenarios we are in urgent requirement to Plan an optimal nutrition to fight against COVID-19.

Optimal nutrition involves balancing of food ingredients and nutritions to meet the requirements of a person for basic maintenance of physiological function, for growth and for reproduction and lactation.

Most people know good nutrition and physical activity can help to maintain a healthy weight. But the benefits of good nutrition go beyond weight. Good nutrition can help to reduce the risk of some infections and diseases including heart disease, diabetes stroke. Some cancers and osteoporosis.

Optimal nutrition has been visualized as that which maintain a level of metabolic normalcy so that when the organism is exposed to stress, the normal protective homeostatic mechanisms can be put into operation rapidly, with a minimum of strain, and for as short a time as possible. Because of this zone of homeostasis, it is difficulty to establish the quantities of nutrients which provide optimal nutrition. These may vary considerably, depending upon individual biologic variability, sex, age, and both exogenous and endogenous stress. Balanced and optimal macro-and micro-nutrient intake provides an important foundation for good health. Micro nutrients are essential for a myriad of body functions, Playing indispensable and diverse roles as coenzymes, structural components, pro-hormones, components of body fluids, antioxidants and many more. Today's lifestyle and eating habits often result in 'Unbalanced' diets with many people not even meeting RDA levels of all essentials nutrients. Also, because each individual has his or her own "biochemical individuality", or distinct nutritional needs which must be net for optimal well-being, the RDA may not be adequate. Many factors can further increase individual nutrients requirements, such as smoking, alcohol abuse, chronic dieting. Eating ISBN: 978-93-90627-01-1 169 a well-balanced diet rich in fruits and vegetable and taking a high quality, scientifically balanced multiple vitamins/mineral supplement is an excellent way to ensure. That our individual nutrient needs are met.

Nutrients that have been identified as critical for the growth and function of immune cells include vitamin, vitamin C, Vitamin D, Zinc, Selenium, iron and protein (including the amino acid glutamine)

# Give your immune system a boost with healthful, Plant based foods:

As corona virus (COVID-19) has impacted communities around the world, many people have wondered whether there are steps they can take to stay healthy.

### Diet:

Eating a low fat, plant, based diet may help give the immune system a boost. The immune system relies on white blood cells that produce antibodies to combat bacteria, viruses and other invaders.

A Plant-based diet has also been shown to reduce inflammatory biomarkers.

# Vitamins, Minerals and Antioxidants:

Studies have shown that fruits and vegetables provide nutrients - live beta carotene, Vitamin C and Vitamin E that can boost immune function. Because many vegetables, fruits, and other Plant-based foods are also rich in antioxidant, they help to reduce oxidative stress.

# **Beta-Carotene:**

Beta-Carotene is a powerful antioxidant that can reduce inflammation and boost immune function by increasing disease-fighting cells in the body. Excellent sources include sweet potatoes, carrots and green leafy vegetables.

### Vitamin C and E:

Vitamin C and Vitamin E are antioxidants that help to destroy free radicals and support the body's natural immune response. Sources of Vitamin C include red peppers, oranges, Amla, Strawberries, gauva, broccoli, mangoes, Lemons and other fruits and vegetables. Vitamin E sources include nuts, seeds, spinach and broccoli.

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## Vitamin D:

Research shows Vitamin D supplementation may reduce the risk for viral infections, including respiratory tract infections, by reducing. Production of proinflammatory compounds in the body. Increased Vitamin D in the blood has been linked to Prevention of other chronic disease including tuberculosis, hepatitis and cardiovascular disease. Food sources of Vitamin D include fortified cereals and plant based milks and supplements.

### Zinc:

Zinc is a mineral that can help boost white blood cells which defend against invaders. Sources include nuts, pumpkin, seeds, sesame seeds, beans and lentils.

# **Summary:**

No one food is recommended over another and eating a variety of foods will help to maintain a health balance diet. And ofcourse "Good hygiene practice remains the best means of avoiding infection".

Good nutrition supports the body throughout the life course, from birth to old age. A balanced diet, including all food groups, supports an effective immune system and may provide protection against infections and other diseases.

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