

## Research Papers on Plant Bioresources of Sikkim

Volume – III, No.1

### Contents

<u>Sl.No.</u>	<u>Topic &amp; Authors</u>	<u>Page No.</u>
1.	A critical Appraised on the foods and fodder availability in Sikkim <i>N. Balaraman</i>	1-6
2.	Adsorption and availability of phosphorus in limed acidic soils of Sikkim <i>Patiram &amp; R.N. Rai</i>	7-12
3.	Agro-forestry System in Sikkim Hills <i>K.A.Sing, R.N. RaiI. &amp; P.Pradhan</i>	13-16
4.	Assessment of genetic Variability, correlation and bath analysis in soybean ( <i>Glycine max</i> ) under mid hills of Sikkim <i>Major Singh &amp; Gyanendra singh</i>	17-19
5.	Biochemical evaluation of different passion fruit ( <i>Passiflora edulis</i> ) cultivars raised in Sikkim <i>Ramesh Kumar &amp; Chander Deo</i>	20-21
6.	Characterization of Medicinal plants used by different tribes in the Sikkim Himalayas. <i>K.P. Tripathi, Bajrang Singh &amp; R.K. Jain</i>	22-29
7.	Chemical Control of Powdery Mildew of Pea in Sikkim <i>S.M. Mishra &amp; D.K.Gupta</i>	30
8.	<i>Citrus reticulata</i> in the Mamlay watershed, Agroforestry Practice and market <i>Y.K Rai &amp; L.K.Rai</i>	31-34
9.	Consumption Pattern of Traditional Fermented Foods in the Sikkim Himalayas <i>H.Yonzan &amp; J.P.Tamang</i>	35-38
10.	Cutting Management of Oat Varieties at Mid hill of Sikkim <i>K.A Singh</i>	39-40

11. Decline Status of Mandarin Orange(*Citrus reticulata* Blanco) in Sikkim  
*R.C Upadhaya, Patirum & S.Ray* 41-47
12. Disease Problems in Bhindi in Sikkim  
*L.S. Srisvastava & Sheo Rai* 48-49
13. Diseases of Ginger and their management in Sikkim  
*L.S. Srivastava* 50-53
14. Distribution and diversity of Polygonaceae in Sikkim  
*Sudhansu Shekhar Dash & Paramjit Singh* 54-68
15. Distribution of Solanaceous plants and rapid method by estimation of solasomine in dry berries from north Bengal and Sikkim  
*U.Gupta* 69-72
16. Effect of Liming on cationic relationships of Potassium, Calcium and Magnesium of acid soils and maize plants in Sikkim.  
*Patiram, R.N.Rai & K.P Singh* 73-78
17. Effect of dates of Sowing and row spacing on yield of forage Oats in Sikkim  
*K.P.Singh, A. Basu and R.N.Rai* 79-82
18. Effect of Different Levels of Concentrate Supplementation on growth performance of Sikkim Local kids Fed Mixed Jungle grass based diet  
*A.Das* 83-88
19. Effect of farmyard mammal and fertilizer levels on yield of maize (*Zea mays*) and succeeding rice bean (*Vigna umbellata*) crops in Sikkim  
*A.K. Nair* 89-90
20. Effect of Growth Regulators on the *in-vitro* Multiplication of Nucellar Seedlings of *Citrus reticulata* Blanco  
*Manjila Sharma, Sushen Pradhan, K.B.Subba & B.C. Basistha* 91-94
21. Effect of Management Practices of Sikkim Mandarin production  
*Patiram, R.C.Upadhaya & J.R.Subba* 95-97
22. Effect of various cultural conditions on in-vitro germination of immature seeds of *Citrus reticulata* Blanco  
*Sushen Pradhan, Manjila Sharma, K.B.Subba and B.C. Basistha* 98-101
23. *Eria Globulifera Seidene* Addition to the Orchid flora of Sikkim and North west Himalaya

	<i>K.K. Agrawal &amp; H.J. Chowdhery</i>	102-105
24.	Ethonobotanical Studies in Some Fringe Areas of Sikkim and Darjeeling Himalayas	
	<i>P.C. Rai., A. Sarkar ,R.B.Bhujel &amp; A.P.Das</i>	106-115
25.	Fertility Status of some soils of Sikkim	
	<i>Yashoda Avasthe, R.K.Avasthe &amp; D.T Bhutia</i>	116-121
26.	Fungicidal control of white rust of mustard in Sikkim	
	<i>L.S Srivastava &amp; R.N. Verma</i>	122-124
27.	Furrow Application of Lime is economically to Rectify the Acid Soils of Sikkim	
	<i>Patiram</i>	125
28.	Further evaluation of Some selected fungicides against Powdery Mildew of Pea in Sikkim	
	<i>L.S. Shrivastava</i>	126-129
29.	<i>Genus Crotalaria L. in Sikkim</i>	
	<i>B.K. Shukla, A. Masti</i>	130-138
30.	In Sikkim Cultivating avocado Scientifically	
	<i>R.C.Upadhyay &amp; L.S. Srisvastava</i>	139-142
31.	In Vitro study on Gametophyte Development of Epiphytic Fern, <i>Arthromeris himalayensis</i> (Hook.) Ching,of South Sikkim,India	
	<i>Gautam Ganguly,Kaushik Sarker</i>	143-151
32.	Increasing population of globally rare <i>Rhododendron niveum</i> Hook. (Ericaceae) in Sikkim with a note on its stomata	
	<i>S. Panda</i>	152-156
33.	Indigenous fermented food beverages of Darjeeling hills and Sikkim Process and Product characterization	
	<i>J.P.Tamang, S.Thapa, N. Tamang &amp; B.Rai</i>	157-167
34.	Intercropping of some temperate grasses at mid-hills of Sikkim	
	<i>K.A. Singh &amp; L.N. Singh</i>	168-169
35.	Introduction of improved Technology in East Sikkim Shows lasting Results	
	<i>S.N. Mehta, R.C. Upadhayaya, P.K Thakur &amp; R.N. Rai</i>	170-171

36. Lab to land Programme in Sikkim  
*R.N Rai, K.R. Dhiman & Jagpal Singh* 172-175
37. Landuse Change Detection through remote sensing-A Case Study of  
Mamlay watershed of Sikkim Himalaya  
*A.P.Krishna, S.C.Rai & E.Sharma* 176-184
38. Large Cardamom and its wild relatives in Sikkim Himalayas  
*S.Kumar & D.C.S Raju* 185-190
39. Leaf Sreak (C.O *Pestalotiopsis royenae*)- A new disease of large cardamom  
from Sikkim  
*L.S. Srivastava & R. N.Verma* 191-192
40. *Lejeunea papilionacea* Steph.(*Hepaticae: Lejeuneaceae*)-An addition to  
Indian Bryoflora from east Sikkim  
*Devendra Singh, Monalisa Dey & D.K. Singh* 193-196
41. Management of Leaf Streak disease of Large Cardamom through  
fungi toxicants in Sikkim  
*L.S . Srivastava* 197-199
42. Managing Rhizome rot on ginger in Sikkim  
*M. Narayana Bhatt, P.P Rajan, Ramesh Kumar & J.R. Subba* 200-201
43. Maximization of maize yield by non monetary inputs in Sikkim  
*K.P.Singh & R.N.Rai* 202-206
44. Medicinal plants of Sikkim in Ayurvedic practice  
*Ashok Kumar Panda* 207-216
45. Micropropogation of *Dendrobium fimbriatum* Hook- An Endangered orchid  
of the Sikkim Himalaya  
*Ramnath Sharma, Bibaychana Sharma & K.K.De* 217-219
46. Morphometry and Marginal Vegetation of Khechupari Lake in Sikkim  
*B.N.Roy & M.P. Thapa* 220-223
47. New Records of Red rust in Sikkim  
*D.K.Gupta & L.S.Srivastava* 224
48. Nitrogen Application enhances mandarin Productivity in Sikkim  
*Patiram & R.C.Upadhaya* 225

49.	Nitrogen Management in Transplanted rice ( <i>Oryza sativa</i> ) in mid hill acidic soils of Sikkim Himalayas <i>Ravikant Avasthe</i>	226-230
50.	Note: New hosts of <i>Ampelomyces Quiqualis</i> Ces. From Sikkim <i>L.S. Shrivastava</i>	231
51.	Nutrient Status of Mandarin orange ( <i>Citrus reticulata</i> Blanco) in Sikkim <i>R.C. Upadhyaya &amp; Patiram</i>	232-236
52.	Nutritive Status of Grassland of high altitude of Sikkim <i>N. Balaraman</i>	237-242
53.	P.K 472: a promising soybean variety in Sikkim <i>Major Singh, Gyanandra Singh, D.T. Bhutia, R.P Awasthi &amp; D.K.Gupta</i>	243-247

**FOR FULL PAPERS OF THE JOURNAL**

**CONTACT**

SIKKIM BIOINFORMATICS CENTRE, SIKKIM STATE COUNCIL OF SCIENCE & TECHNOLOGY,  
DEPARTMENT OF SCIENCE & TECHNOLOGY, DEVELOPMENT AREA, GANGTOK- 737 101.

Email: [stcstsikkim.btisnet@nic.in](mailto:stcstsikkim.btisnet@nic.in), [bits\\_skm@yahoo.com](mailto:bits_skm@yahoo.com)

Website: [www.bioinformaticssikkim.gov.in](http://www.bioinformaticssikkim.gov.in)

## Research Papers on Plant Bioresources of Sikkim

Volume – III, No.2

### Contents

<u>Sl.No.</u>	<u>Topic &amp; Authors</u>	<u>Page No.</u>
1.	Performance of Forage rice bean strains at midhills of Sikkim <i>K.A.Singh, R.N. Rai &amp; N.Balaraman</i>	1-3
2.	Phenology of flowering in large cardamom ( <i>Amomum subulatum</i> ) at Gangtok <i>G.S. Karibasappa</i>	4-6
3.	Physico-chemical and sensorial attributes of Sikkim Mandarin ( <i>Citrus reticulata</i> ) <i>Kindan Kishore, Ashok Kumar, H. Rahman, Monika N, Brijesh Pandey</i>	7-10
4.	Popularizing Kiwi Cultivation in Sikkim <i>R.C.Upadhyay &amp; G.S. Karibasappa</i>	11
5.	Powdery Mildew of Pea can be controlled in Sikkim <i>L.S. Srivastava</i>	12-13
6.	Powdery Mildew of Wheat in Sikkim <i>D.K.Gupta</i>	14
7.	Preliminary Observation on the occurrence Root Nematode of Some vegetable crops in Sikkim <i>D.K. Gupta</i>	15-16
8.	Probability Analysis of Rainfall for Crop Planning and watershed Management in Sikkim <i>R.K.Singh</i>	17-19
9.	Prospects of French-bean Cultivation in Sikkim <i>L.S.Srivastava, G.S Singh, M. Singh &amp; D.K.Gupta</i>	20-22
10.	Pulses production in Sikkim- an Overview <i>Gyanandra Sing, L. S Srivastava &amp; Major Singh</i>	23-26
11.	Rainfall Pattern in Mid-hills of Sikkim <i>R.K.Singh, A.K.Mishara &amp; K.K Satapathy</i>	27-33

12.	Relationship of Erodibility with soil properties and vegetation buffers and landslide prone areas in Sikkim <i>T.K. Misra, P.Mandal, L. Lepcha</i>	34-40
13.	Relationships between altitude and available Nitrogen, Phosphorus and potassium in same soils of Sikkim <i>Y.Avasthe &amp; R.K.Avasthe</i>	41-46
14.	Relationships between Altitude and Status of Boron and Molybdenum in some soils of Sikkim <i>Yashoda Pradhan, R.K.Avasthe &amp; R.S. Sachan</i>	47-50
15.	Relationships between altitude and status of Zinc and copper in an soils of Sikkim <i>Yashoda Pradhan, R.S Sachan, R.K.Avesthe</i>	51-57
16.	Relative efficacy of fungi toxicants against powdery mildew of black grow in Sikkim <i>L.S. Srivastava</i>	58-61
17.	Response of Forage Oat to nitrogen at mid hills of Sikkim <i>K.A singh, V.K. Hazarika &amp; L.P Pradhan</i>	62-64
18.	Response of maize ( <i>Zea mays</i> ) to Potassium in Sikkim soil <i>Patiram, R.N.Rai, K.P.Singh, &amp; R.N.Prasad</i>	65-67
19.	Response of Maize, Rice and Wheat to Fertilizer Nitrogen in Sikkim <i>Patiram &amp; R.N Rai</i>	68-72
20.	Rice Bean: A promising pulse for Sikkim <i>Gyanendra Singh, Major Singh &amp; K.R. Dhiman</i>	73
21.	Rice Cultivation in Sikkim- its scope for improvement <i>Major Singh, Gyanandra Singh, L.S Srivastave &amp; K.R. Dhiman</i>	74-76
22.	Root and collar Rot of Mustard in Sikkim <i>D.K.Gupta</i>	77
23.	Sarson- A Potential cash Crop for Sikkim <i>G.B. Singh</i>	78-79
24.	Sarson Cultivation in Sikkim <i>L.S. Srivastave &amp; N.S. Azad Thakur</i>	80-81

25.	Screw Pine ( <i>Pandanus nepalensis</i> St. John) <i>B.Mitra</i>	82-83
26.	Seed Borne Fungi of Bhindi, Brinjal and chilies grown in Sikkim <i>D.K.Gupta &amp; K.C.Basu Chaudhary</i>	84-85
27.	Seedling growth and Nitrogenase activity of <i>Alnus</i> and <i>Albizia</i> in Sikkim <i>Rita Sharma &amp; A.N.Purohit</i>	86-94
28.	Sikkim Agriculture revolves around Maize <i>G.B.Singh</i>	95-96
29.	Sikkim's Transition towards organic farming: status and prospects <i>R.K. Avasthe, H.Rahman, Yoshoda Pradhan, Tasvina Rahman Borah, R. Karupaiyan &amp; Matber Singh</i>	97-119
30.	Some Promising Varieties of Maize for Sikkim <i>Gyanendra Singh, Major Singh &amp; K.R. Dhiman</i>	120
31.	Stability analysis in maize ( <i>Zea mays</i> ) in mid hills of Sikkim <i>Gyanendra Singh, Major Singh, D.T. Bhutia, &amp; R.P.Awasthi</i>	121-122
32.	Stand architecture, shade effect and stand tree density Management in the Age series of <i>Alnus</i> -Cardamom Plantations in the Sikkim Himalayas <i>Ghanashyam Sharma &amp; K.K Singh</i>	123-130
33.	Status on Citrus decline in Sikkim <i>D.K.Gupta</i>	131-133
34.	Studies on compatibility of grasses under Natural Forest of Utis ( <i>Alnus Nepalensis</i> ) and Chilaunay ( <i>Schima Wallichii</i> ) <i>R.N.Rai, K.Venogopal, K.A.Singh and R.D. Singh</i>	134-135
35.	Studies on oil bodies in some Foliose livermints from east Sikkim <i>Devendra Singh, Monalisa Dey &amp; D.K.Singh</i>	136-141
36.	Studies on Pollen Tetrads Morphology of Sikkim Himalayan Rhododendrons <i>Sandeep Kumar, K.K. Singh, S.K. Chettri &amp; L.K. Rai</i>	142-145
37.	Systematic Survey of Some angiospermic epiphytes (other than Orchids) of Sikkim Himalaya <i>B.Mitra and Alok Verma</i>	146-152



38.	The family <i>Euphorbiaceae</i> in Sikkim,India <i>T.Chakraborty &amp; N.P. Balakrishnan</i>	153-209
39.	The Genus <i>Desmodium</i> Desv.(Leguminosae) in Sikkim <i>S.S. Dash &amp; P.Singh</i>	210-221
40.	The Tribe Astereae(Astaraceae) in Sikkim-I <i>G.P. Sinha &amp; B.K Shukla</i>	222-238
41.	Toxic Plants of Sikkim Himalayas <i>B.Krishna</i>	239-244
42.	Useful plants of Kabi Sacred Grove, Sikkim <i>Dash, S.S. &amp; A.S. Chauhan</i>	245-253
43.	Varietals screening of Pea against powdery mildew in Sikkim <i>L.S. Srivastava</i>	254-255
44.	Wheat in Sikkim too <i>G.B.Singh</i>	256-257
45.	Wild edible plants of the Sikkim Himalaya. <i>Manju Sundriyal, L.K.Rai</i>	258-269
46.	YAMS ( <i>Dioscorea</i> L.) in Sikkim <i>B.Krishna,B. Mitra and D.C.S. Raju</i>	270-275

**FOR FULL PAPERS OF THE JOURNAL**

**CONTACT**

SIKKIM BIOINFORMATICS CENTRE, SIKKIM STATE COUNCIL OF SCIENCE & TECHNOLOGY,  
DEPARTMENT OF SCIENCE & TECHNOLOGY, DEVELOPMENT AREA, GANGTOK- 737 101.

Email:stcstsikkim.btisnet@nic.in,bits\_skm@yahoo.com

Website: [www.bioinformaticssikkim.gov.in](http://www.bioinformaticssikkim.gov.in)

