CURRENT SCIENCE

Volume 116 Number 4

508

In this issue

25 February 2019

San and and and and and and and and and a		GUEST EDITORIAL
	509	Will our education system enable India to be a super-power any time soon? Gayatri Saberwal
		CORRESPONDENCE
	511	'Autophotographs' noted in 1939 Anantanarayanan Raman
	512	Quality of Ph D degree holders in India D. P. Abrol
		NEWS
2	513	Science Last Fortnight
	517	2019 King Faisal International Prize for Science and Medicine Sameen Ahmed Khan
	518	Digital seismic network: to map Himalayan orogen and seismic hazard D. Srinagesh, Prantik Mandal, R. Vijaya Raghavan, Sandeep Gupta, G. Suresh, D Srinivas, Satish Saha, M. Sekhar, K. Sivaram, Sudesh Kumar, P. Solomon Raju, A. N. S Sarma, Y. V. V. S. B. Murthy, N. K. Borah, B. Naresh, B. N. V. Prasad and V. M. Tiwari
		IN CONVERSATION
	520	David Baker S. Priya
		COMMENTARY
	521	A tale of two eras (1973–2014): World energy scene 40 years after the energy crisis B. G. Desai
		SCIENTIFIC CORRESPONDENCE
	524	Biodiversity conservation for agriculture, nutrition and health in an era of climate change M. S. Swaminathan, G. N. Hariharan and P. C. Kesavan
	526	Low-cost hydroponic fodder production technology for sustainable livestock farming during fodder scarcity S. Gunasekaran, C. Bandeswaran and C. Valli
	528	Enhancing the efficiency of detached leaf method for resistance breeding in apple by considering leaf emergence phenology Rameez Nazir Rather, Aijaz A. Wani and Mehraj-Ul-Din Shah
		GENERAL ARTICLES
:	530	Scale, style and spread of global institutional research Gangan Prathap

Slope stability analysis with reference to rainfall infiltration in the Yongping

Yue Li, Weiya Xu, Shengnian Wang, Huanling Wang and Yongxin Dai

536

Copper Mine, China

RESEARCH ACCOUNT

Genetic gain for yield in rice breeding and rice production in India to meet with the demand from increased human population
K. Muralidharan, G. S. V. Prasad, C. S. Rao and E. A. Siddiq

REVIEW ARTICLES

- Marine spatial planning for resource conservation, fisheries management and for ensuring fishermen security global perspectives and Indian initiatives

 A. P. Dineshbabu, Sujitha Thomas, Prathibha Rohit and G. Maheswarudu
- 568 Current rice farming, water resources and micro-irrigation K. G. Mandal, A. K. Thakur and S. K. Ambast

RESEARCH ARTICLES

- 577 A dynamical model of growth of membership to an opinion Prashant Goswami and Shivnarayan Nishad
- 592 Study on flow behaviour in the short-throat-jet type flotation machine
 Hongzheng Zhu, Jinbo Zhu, Alejandro López Valdivieso, Shaoxian Song and Fanfei
 Min
- 597 Introgression of semi-dwarf gene in Kalanamak rice using marker-assisted selection breeding

 Deepti Srivastava, Md Shamim, Anurag Mishra, Prashant Yadav, Deepak Kumar, Pramila Pandey, Nawaz A. Khan and Kapildeo N. Singh
- Adsorption of Orange-G dye by the dried powdered biomass of *Chlorella vulgaris*Beijerinck
 Sunil Kumar, Amrik Singh Ahluwalia and Mayank Uday Charaya
- Finite element-based simulation and analysis of dragline bucket in static and dynamic loading condition

 Shah Fateh Azam and Piyush Rai
- Volume estimation of existing and potential glacier lakes, Sikkim Himalaya, India S. N. Remya, Anil V. Kulkarni, S. Pradeep and D. G. Shrestha
- Estimating elastic impedance from seismic inversion method: a study from Nova Scotia field, Canada
 S. P. Maurya
- Predicting the invasion potential of indigenous restricted mango fruit borer, Citripestis eutraphera (Lepidoptera: Pyralidae) in India based on MaxEnt modelling

 Jaipal Singh Choudhary, Santosh S. Mali, Babasaheb B. Fand and Bikash Das

RESEARCH COMMUNICATIONS

- Pesticides use and its effect on soil bacteria and fungal populations, microbial biomass carbon and enzymatic activity
 Sanjay Arora, Sumitra Arora, Divya Sahni, M. Sehgal, D. S. Srivastava and A. Singh
- Enhancing the anti-tyrosinase activity of a hypersaline *Kitasatospora* sp. SBSK430 by optimizing the medium components

 Michelle S. Fernandes and Savita Kerkar
- **Determination of the critical span for a large-caving above a mined-out area** Haiying, Fengyu Ren, Yunfeng Zhao and Sitong Ren
- Estimation of regional groundwater discharge and baseflow contribution in northern stretch of the Yamuna River system of Delhi
 Aryaman Jain and Shashank Shekhar



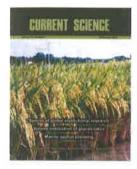




Modulation in activity profiles in insecticide-resistant population of tobacco caterpillar, Spodoptera litura (Fabricius)
 P. Sreelakshmi, Thomas Biju Mathew, K. Umamaheswaran and A. Josephrajkumar

BOOK REVIEWS

- 670 The Human Advantage: A New Understanding of How Our Brain Became Remarkable, Suzana Herculano-Houzel; reviewed by Supratim Ray
- 671 Plants of Kedarnath Wildlife Sanctuary, Western Himalaya: A Field Guide. Ishwari Datt Rai, Gajendra Singh and Gopal Singh Rawat; reviewed by M. Sanjappa and P. Venu
- A Jewel Unearthed: Bibha Chowdhuri. The Story of an Indian Woman Scientist.
 Rajinder Singh and S. C. Roy; reviewed by Hardev Singh Virk
- 674 Publications received 2018



◀ COVER. Unsurpassed limit to rice yield of Jaya released in 1968. See page 544.

Indexed in CURRENT CONTENTS/GEOBASE/CHEMICAL ABSTRACTS/IndMED/SCOPUS/WEB OF SCIENCE