SHORT SCIENTIFIC NOTES

Occurrence of Robinetin in the Heartwood of *Gliricidia maculata*

The heartwood of *Gliricidia maculata* (H. B. and K) Steud. (Family : Leguminosae) is hard, strong, heavy, durable and resistant to weathering and fungal attack and finds use where these qualities are preferred. Literature does not record any earlier chemical examination of it. This has now been done and it has been found to contain robinetin (0·17%), a flavonol of rather rare occurrence reported so far only from the wood of *Robinia pseud-acacia*[1], *Gleditschia monosperma*[2] and *Acacia mearnsii*[3].

The wood shavings were successively extracted with petroleum ether, ether, acetone and alcohol. The first extract gave only a small yield of oil. The other three extracts on appropriate working up yielded a considerable quantity of resin and the same (according to paper chromatography and TLC) nonresinous component, an yellow powder decomposing above 300°. The combined powder was acetylated and the crystallised product, m.p. 230–31°, $C_{25}H_{20}O_{12}$ was deacetylated by boiling with alcoholic HCl. The resulting substance crystallised from dilute alcohol as small yellow needles, $C_{15}H_{10}O_7$ (without methoxyl), slowly decomposing above 310°. Besides answering all the colour reactions of flavonols it was found to be easily oxidised by benzoquinone and to undergo a series of colour changes on the addition of sodium carbonate solution. The spectral data in the UV-visible region, together with shifts with reagents commonly employed with flavonoids, coupled with colour tests with benzoquinone, sodium carbonate and zirconium oxychloride showed that it had free hydroxyls at positions 3 and 7 and a pyrogallol system in the side phenyl nucleus. The methyl ether (dimethyl sulphate-acetone potassium carbonate method) crystallised from ethyl acetate as needles, m.p. 148–49°, $C_{20}H_{20}O_7$ including five methoxyl groups. The properties of the parent substance and the melting point and the composition of the acetate and methyl ether showed that the parent compound could be robinetin. This was confirmed by direct comparison of the acetate and methyl ether with authentic robinetin derivatives using mmp, TLC and I.R.

We thank Prof. T. R. Seshadri, F.R.S., for his kind interest,

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Delhi-7, *November* 25, 1972.

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A New Name for *Euryischia indica* Agarwal (Hymenoptera : Chalcidoidea)

Euryischia manmohani NOM. N.

Euryischia indica Agarwal, 1970, *Mushi* 44 : 28 (Preoccupied by *Euryischia indica* Mani and Kurian, 1953, *Indian J. Ent.* 15 : 15).

Mani and Kurian (1953) described the species *Euryischia indica* which was reared from *Icerya pilosa* Green at Cape Comorin, Tamil Nadu, India. Later, Agarwal (1970) described another species under the same name *Euryischia indica* which was reared from *Pseudococcus* sp. at Aligarh, Uttar Pradesh, India. Thus, *Euryischia indica* Agarwal becomes a junior primary homonym of *Euryischia indica* Mani and Kurian. Therefore, a new name *Euryischia manmohani* is proposed for *Euryischia indica* Agarwal, 1970 (nec Mani and Kurian, 1953).

The author is grateful to Prof. S. Mashhood Alam, Head, Department of Zoology, for providing laboratory facilities.

Section of Entomology,
Department of Zoology,
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Aligarh, India, *November* 22, 1972.

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A New Species of *Ascochytula* Potebnia

During a collection tour to Pushkar, Ajmer (Rajasthan) in December, 1970, the authors recorded an interesting sphaeropsidacious fungus *Ascochytula* Potebnia on dead leaves of *Sapindus trifoliatum* L. The type specimen of this genus was sent to CMI, Kew, for identification, but it

could not be placed under any of the existing species of *Ascochytula*. Due to a great variation in the morphology of the conidia and the pycnidia, the species is being described as *Ascochytula sapindae* sp. nov.

Ascochytula sapindae Sp. Nov.

Pycnidia gregarious, dark-brown to black, ostiolated with thick wall, 122–258 μ in diam.; conidia numerous, oblong-fusoid, broadest at the septa, septum thick, obtuse at both ends, bicelled, brownish, 8–14 $\times$ 5–7 μ.

On dead leaves and twigs of *Sapindus trifoliatum* L.

Specimen deposited with CMI, Kew. No. IMI 155809.

Coll. No. J.U.M.L. 48.

Ascochytula sapindae Sp. Nov.

Pycnidia gregaria, brunnea ad ater, ostiolata cum crasso pariete, 122–258 μ in diam.; conidia numerosa, oblonga-fusiforma, ad septa latissimia, septum-crassum, utriuque obtusa, bicellata, brunnea, 8–14 $\times$ 5–7 μ.

Foliis mortuis et ramuneulis. *Sapindus trifoliatus* L.

Specimen depositum apud CMI, Kew, No. IMI 155809.

Coll. No., J.U.M.L. 48.

The authors are thankful to Dr. Punithalingam of C.M.I, Kew. Thanks are also due to Rev. Father William Barracos for Latin diagnosis.

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Sclerotinia Blight of Lentil

The lentil (*Lens esculenta* L.) crop at the Crops Research Centre, Pantnagar, was found severely affected by a blight during March and April, 1972. The first symptom of the disease was the appearance of water-soaked spots, which were converted into brown lesions. The surface of the affected stem or branches were covered with white creeping strands of the fungus mycelium. In some cases the cottony superficial mycelium formed cushions in the axils of the branches. In most severe infections, the mycelial cushions and sclerotia were observed on the pods and also on the seeds. Black sclerotia were found on the main stem, branches and pods. The infected plants soon turned yellow and wilted.

The pathogen was isolated in pure culture on potato-dextrose-agar and pathogenicity was proven by inoculating 3-week old seedlings of lentil cultivar L 9-12. A detailed study revealed that the fungus is *Sclerotinia sclerotiorum* (Lib.) de Bary and its conidial stage is *Botrytis* sp. A blight caused by *Sclerotinia sclerotiorum* has been reported from Italy[1], U.S.S.R.[2], Chile[3], Czechoslovakia[4], Spain[5], and U.S.A.[6]. This is the first record of this pathogen on lentil in India.

Department of Plant Path., College of Agriculture, G. B. Pant Univ. of Agri. and Tech., Pantnagar (Nainital), U.P., *October* 30, 1972.
J. Kannaiyan.
Y. L. Nene.

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Effect of Washing Rice Plants After Inoculation on the Lesion Development of Bacterial Blight Incited by *Xanthomonas oryzae*

An experiment was carried out to find out the minimum time required for the establishment of infection after the introduction of the pathogen in the leaf tissue.

Three leaves of each plant of the variety *Taichung (Native)*-1 were inoculated by multiple pin prick method when the plants were 45 days old. The inoculated plants were subjected to a fine jet of water for 30 min. at intervals of 0, 5, 10, 20, 40, 60 min. and 2, 4, 6, 8, 10, 12 and 24 hr. after inoculation. A set of inoculated plants not subjected to the washing served as check. Each treatment was replicated 6 times. Observations were recorded after 15 days of inoculation according to the method of Devadath and Padmanabhan.

Results showed that when the leaf was washed immediately after inoculation, the infection did spread inside. It was also noted that increase in time lag between inoculation and washing had no significant effect on the spread of the lesion. On the other hand washing of the inoculated leaves was found to be more congenial for the development of infection, as the control plants had produced the least infection.

It might be concluded from the above results that the bacterium could produce the disease when once it gained entry into the plant tissue and

washing of the inoculated leaves after introduction of inoculum inside had no adverse effect on the spread of infection. Thus rains coming either at the time of inoculation or immediately after does not interefere with the success of the studies in the *Kharif* season.

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Pyroglyphid Mites in Man and His Surroundings

The wife of a laboratory assistant developed baldness of the head and treatment at the various hospitals was of no avail. Out of curiosity, one of us got the skin scrapings of the head and on examination found a number of species of mites, not noticed at the hospitals. Various acaricides were applied but the mites persisted. This led to a suspicion that there may be a source in the near sorroundings of the patient, from where the mites reinfested constantly. As a first step, the dust from the beddings and clothes were examined and similiar mites were found in great numbers. It has been established in other countries that pyroglyphid mites cause allergic cutaneous and respiratory affections in man and this induced us to take greater interest. Through the help of a physician, the bed dust from more than 50 houses with a history of respiratory affections in the inmates and the nasal discharge and sputum of 8 cases have been examined so far. All the dust samples showed heavy infestation of the mites and the nasal discharge of a child aged 8 months and an infant aged 4 years was positive for the mites.

Apart from the mites belonging to other families, the pyroglyphid mites present in the samples are identified as (1) *Dermatophagoides pteronyssinus* (Trouessart, 1897), (2) *Euroglyphus mayeni* (Cooreman, 1950) and (3) *Dermatophagoides farinae* Hughes, 1961. The first two species were found in all the samples, one dominating in some and the other in others. Majority of *E. mayeni* are females with few males. The overall picture showed that *D. pteronyssinus* are dominant, the second place is that of *E. mayeni* and the third that of *D. farinae*. A similar picture is reported by the Dutch workers (Voorhurst, Spiekman and Verekamp, 1969). In England *D. pteronyssinus* and *E. mayeni* seem to be dominant (Maunsell, Wraith, Cunnington, 1968) and in U.S.A. *D. farinae* (Larson, William and Wharton, 1969). It has been established that all these three species produce allergens that cause reactions in man (Voorhurst *et al.*, 1969). The atmosphere of Bangalore is well known to cause respiratory affections from rhinitis to asthma and these mites present in heavy numbers in all the houses examined may be one of the factors for this condition. This is the first record of these species of mites in India.

We are thankful to Dr. S. Oshima of Yokohama Institute of Health, Japan, for identifying *D. pteronyssinus* and *E. mayeni* and to Dr. M. S. Narayana Rao, Physician, Bangalore, for his keen interest in this work and for sending materials for examination from his patients with respiratory affections.

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Hebbal, Bangalore-24,
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G. P. CHANNABASAVANNA.

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The Common Indian Pond Frog: *Rana cyanophlyctis* Schneider—An Alternate Specimen for Laboratory Studies

The frog is of primary biological interest since it opens up the chapter on land vertebrates throwing light on the evolution of higher vertebrates from their primitive ancestors. Nowadays frogs are freely used in zoological and allied laboratories throughout the world for two purposes: for studying a full-fledged land vertebrate's characters and for physiological experiments.

In our country, two frogs the Indian Bull Frog (*Rana tigrina* Daudin) in North India and the Green Frog (*Rana hexadactyla* Lesson) in South India are in great demand for purposes of dissection in the colleges. But these two Indian frogs have become valuable species commercially because their hind legs form a popular delicacy and are very much relished in Western countries. A regular export trade has already developed in these edible species.

The Indian Amphibia is rich enough to provide an alternative for dissection studies in the laboratory. This is *Rana cyanophlyctis*, commonly called "the water skipping frog", which grows to about 2½ inches from snout to vent. It can be easily recognised by its toes webbed to the tips, in presence of a tubercle like rudimentary sixth toe on the inside of the foot. When alive the colour is olive or brown above with dark rounded spots. Its habitat ranges from clear rocky streams to pools to tanks, wells and wayside ditches. This frog is also met with in brackish waters which indicates its tolerance for salinity. It is abundantly seen during monsoon months and easily collected by means of water nets in large numbers from the water edge.

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A Cercospora Leaf Spot Disease of Bajra (*Pennisetum typhoides* Stapf.) in Gujarat

Bajra is one of the major crops grown in Gujarat in the rainy season. The leaf spot disease caused by Cercospora has been reported in India from Tamil Nadu[1]. In the present paper the same leaf spot disease caused by *Cercospora fusimaculans* is reported from Gujarat.

The spots were observed on a hybrid, *viz.*, HB-3 at Virampura, Lakhawad and several other villages of Mehsana District of Gujarat. The hybrid was distributed to farmers by Gujarat State Co-operative Society Ltd. The hybrid was grown under rainfed and well water conditions during September to October, 1972. As in Tamil Nadu[1] here also it was found that the disease had not affected the native cultivars which were grown by the side. The spots were generally oval with dimensions of 6 to 10 mm in length and 4 to 6 mm in breadth surrounded by dark brown margin with white centre. They were mainly found on leaf sheath and lower leaves of the standing crop. Cross-section of the spots revealed the following structures: (1) Stroma were small, brown and fill the stromata; (2) Conidiophores were unbranched, subhyaline and sparingly septate measuring 2–4 × 10–50 μ (3) Conidia were septate, cylindrical, hyaline, catenulate and slightly curved having 3 to 7 septa. They were 40 to 105 μ in length and 2·0 to 2·5 μ in breadth.

The fungus is identified as *Cercospora fusimaculans*, which is the second record of this fungus on bajra in India and first record in Gujarat.

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Bhavnagar, Gujarat. *November* 20, 1972.

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