

Insect Inhabitants of South India. The bulletin deals with the weevils—a class of beetles which are distinguished by the possession of a distinct snout. This family includes some very serious insect pests and the mention of the Rice weevil of stored Rice, the Red weevil of the Coconut Palm and the cotton stem weevil—all serious pests—is sufficient to indicate its importance. In all 190 species are listed in this paper—of which over 40 are of economic importance. Owing to the absence of sufficient literature and the absence of large reference collections, our knowledge of insects in general of India is in a nebulous condition and publications of the kind under review gather together all that is known of the particular group in India and form an invaluable help to further work. The bulletin is therefore to be welcomed and we would wish that more work of this sort would follow.

Notes and Extracts.

Paper from rubber. Researches which have been going on in London for sometime, point to the strong probability that newspapers will at no great distance of time be printed on paper produced from rubber, instead of on paper made from wood-pulp, as now. The results, says the *Manchester Guardian*, already derived are such that art paper of the kind used in the production of fashion journals and the big illustrated newspapers can be made from rubber. Further experiments are to be made with a view to making newsprint from the same material, and it is on this point, perhaps, that interest in the printing industry will centre. (West India Committee Circular, January 19, 1922.)

Selection of layers among poultry. It is very easy to fix upon the best layers at the end of the laying season. But Mr. Owen John after a few years of experimentation and investigation has been able to pitch upon some important characteristics in the pullet which are generally associated with prospective heavy producers. These characteristics, which are reproduced below, must therefore be of immense help to poultry breeders.

1. The head or skull should be of medium length, inclined to long (not short as usually described). This is pronounced in all cases, particularly, in Leghorns. Moderate length from back to front or base of beak, not snaky, with good depth from crown to underside, and of good width across the top. Beak of moderate length and stout. Eye bright and full, standing well on each side of the head. The shape of the eye is important; the round eye is not so desirable as the oval shape.

2. The neck should be of medium length, inclined to be long, covered with feathers and curving gracefully on to the body. The short neck is an indication of a sluggish disposition, or inactive bird, consequently a poor layer. Length and depth of body are essential, with good width of back, allowing full play for the ovaries, the depth of body, especially towards the posterior of the bird denoting capacity. This should not be confused with a short breast bone which would naturally allow sagging of the abdomen as found in some birds and mistaken for indications of capacity.

3. The pelvic bones are pliable in the good producer, but rigid with no springiness in the indifferent producer. The thickness of bone may be $\frac{1}{16}$ to $\frac{5}{16}$ of an inch. The bone should curve gracefully toward the vent with no evidence of being hooked at the points. $1\frac{1}{2}$ to 2 fingers width between points of pelvic bones and $2\frac{1}{2}$ to 3 fingers width between pelvic bones and joint of breast bone are found in good producers.

4. The abdominal skin must be fine and elastic with no tendency to coarseness. This quality increases with production.

(Journal of the Department of Agriculture, Union of South Africa—April 1922.)

R. S. R.

Molasses for stock feeding. The Ministry of Agriculture and Fisheries in London has issued a leaflet about the value of Molasses as stock food. Molasses is a by-product obtained in the manufacture of sugar from sugarcane, or sugar beet. It has a thick black appearance

with sweetish taste and contains 60 to 70% of sugar. It is a laxative, useful as a conditioner, general appetiser, and improver of the flavour of inferior and unpalatable foods. It is good in itself. Horses may be fed up to 3 lb a day, cows $2\frac{1}{2}$ lbs., bullocks 4 lbs. and sheep $\frac{1}{4}$ or $\frac{1}{2}$ lb. per head per day. When used with straw chaff the molasses should be dissolved in warm water, thrown over the straw, well mixed, and allowed to ferment for several hours before feeding. The measured amount of molasses may be mixed directly with the food or placed in the trough on top of food.

(The Scottish Farmer—April 15th 1922.)

R. S. R.

Important Sugar Development. In the Petree process of treating cane juice the use of filter presses is entirely dispensed with, thus obviating a clumsy and unpleasant operation. Mr. Robert Strang, Manager of Plantation, Uitvlugt, calculated that by its introduction he would save at least \$ 2 per ton in cost of manufacture. This could be done without in any way interfering with the quality of sugar. Much of the labour could be saved.

This remarkable invention will cheapen the cost of sugar in the world's market if it is tried by sugar manufacturers and found fit for universal adoption.

(The Louisiana Planter, page 225 April 8th 1922.)

R. S. R.

City Poverty. "City poverty is a social by-product of Modern Industry. Specialised employment, herding of people in rented quarters, feeding folks on factory cooked, paper packaged food, complete dependence upon wages or salary for a livelihood *with no recourse to farms or villages for partial or temporary relief from unemployment*, living conditions that promote tuberculosis, venereal diseases and other crowd maladies; these and other similar circumstances of city life that spring from modern industry have forced 15 to 20% of our people below the line of adequate permanent self support.

Rural and village communities have no poverty of the sort that burdens Industrial cities. Modern industry has brought forth

modern poverty. Highly specialised industry has stripped the individual of his resources of individuality even to the extent that he no longer prepares his own food or shines his own shoes. His amusements have become passive and commercial. 18,000 people sitting, watching 18 men hired to play base ball is the national game. Naturally under these conditions when life's burdens grow heavy the individual with minor ambition lies down and lets the community lug his load."

(Journal of Industrial and Engineering Chemistry—April 1922.)

R. S. R.

Cure for Leprosy. Derivatives of Chaulmoogra oil—a product from *Taraxtogenos Kurzii*—a native tree of Burma, have been successfully used in the treatment of leprosy for the last 20 years and the reports—which deal with many hundreds of cases—show that these drugs will alleviate the great majority of cases of Leprosy, while they will cure completely about 50% of them.

(The Agricultural News—March 4—1922).

Y. R. R.

Santonin. Santonin is a drug that occurs in the young flower-heads of *Artemesia maritima* and finds an extensive use in medicine as a vermifuge. Prior to the war, practically the whole of the world's supply came from Russian Turkestan, but owing to the unsettled conditions at present prevailing there, supplies are not available and the present price stands at the amazing figure of £ 50 per Kilo. In this connection, the note of Dr. J. L. Simonsen, of the Forest Research Institute, Dehra Dun, in the "Journal of Indian Industries and Labour" on the advisability of starting an industry in Kashmir for the extraction of Santonin from *Artemesia maritima* which is grown plentifully in that state. The only chemicals required, he declares, are lime, hydrochloric acid and alcohol and the method of extraction is simple.

(Agricultural News—March 4—1922.)

Y. R. R.

Manurial value of crushed beetles. In Queensland, the cockchafer beetle is a serious pest of cane. Large numbers of them are hatched in the flying season. It is reported that experiments have shown that when killed in hot weather and dried rapidly on a rough made oven, and later on reduced to meal they made good poultry food. Guenaux reports that, in the case of a manure prepared from the European cockchafer, it was equal to the best manure as regards Phosphoric acid and potash and eight times richer in Nitrogen. One hundred pounds of beetles are equal to 800 of manure." Considering that 22 tons of beetles were collected one year in one district alone, Mr. Jarvis the Entomologist, Gordonsville says that the manurial value of the beetles may be able to defray part of the expense of collecting them.

(From Louisiana Planter, 25 March 1922.)

Y. R. R.

Japan and Rice cultivation. The Formosan Government are, it is understood, extending the area under rice to solve the food problem of Japan. This extension will be brought about by the Kanaga irrigation scheme, by improvement in cultivation and by opening up wild Districts for the cultivation of Rice. The estimated area under Rice (both wet and dry) was 1,240,567 acres in 1921 as abstracted in the Indian Trade Journal of 27 April 1922. The area is expected to be 1,673,720 acres in 1934 as contemplated in the above scheme and will leave a surplus of 2,836,038 bushels of Rice for export to Japan. The food problem has become so acute as to make the authorities abandon the policy of encouraging sugar cultivation at the expense of Rice, a policy inaugurated by the Japanese Capitalists. The International Sugar Journal of 1918 (July issue) stated that the Japanese were bent on making sugar production one of their great enterprises, the stimulus being received by the possibilities of development of the industry in Formosa. It will be interesting to note in this connection that a Tokyo Syndicate with a capital of £600,000 acquired 20,000 acres devoted to coffee and rice for planting sugar cane in the province of Sarakarta in Java. The growing of industrial crops at the expense of

Food crops—especially of the chief staple crop of a country—does not appear to be a far-sighted policy in the agricultural development of a country, as has been testified in the case of Japan.

R. S. R.

Coconuts. From the Times' Trade Supplement it is learnt that the price of 1,000 coconuts as landed at New York from the Pacific Islands comes to 20 pounds. At this rate nuts can be safely bought at Rs. 60 to Rs. 65 per 1,000 at Ceylon and exported to New York. There is a hopeful future for the coconut growers in Ceylon as well as in India. Only some improvements, as noted by the Times Ceylon Correspondent, are needed to make coconut growing one of the soundest investments. The addition to desiccated coconut mills of a newly patented rotary press, an almost acid-free white oil and white Poonac could be turned out in a very short time direct from the raw coconut. About eighty of these presses are now working satisfactorily in Cochin. This kind of press is not known in Ceylon. One other improvement which the Ceylon coconut grower is going to copy from India is the introduction of the manufacture of white copra, common to the Malabar Coast, which realises 3 to 4 pounds more than the local ordinary products.

(The Agricultural News, February 1922.)

R. S. R.

Age of Agriculture. "In a lecture before the Royal Institution Sir Arthur Keith, the eminent Scientist, said that it used to be thought that the art of agriculture dated back to 4,000 B. C., but with the advance in the study of Geology and Anthropology—the history of fossils and the history of human races—science was coming to place agriculture further back to 8,000 or 10,000 years ago in the plains of Mesopotamia and India."

(Scottish Farmer, April 1922.)

R. S. R.

Estate News.

Their Excellencies Lord and Lady Willingdon, visited Coimbatore on the 30th June and had a somewhat crowded programme the whole of the day, being engaged in laying the Foundation stone of the Child