

there any real attempt being made to even encourage them to consider such an association? As far as my professional observation goes the answer is *no*. On the contrary, suggestions, and in some cases offers, by such men to devote a whole or a part of their time to this work have been met with either a flat refusal or a veiled intimation that they had outlived their usefulness. And this in view of the well-recognized fact that many of the most notable discoveries and developments in the history of science have been made by men well past sixty.

What is the explanation of this attitude? Is it because younger men fear "the wisdom which lingers after knowledge comes"? Is it because the present directors of research laboratories or the presidents of our universities realize that men who have practical knowledge of the industrial arts and of the real problems which confront our manufacturers and business men might "nip in the bud" many of the silly and useless—or at least ill-advised—"investigations" which are now being carried on by various members of their staff? Is it because of the snobbish view—not always openly expressed, but very often existent—that no one who has not received a doctor's degree, and preferably from some *foreign* institution—is eligible to a seat with the "intellectuals"? Or is it because the scramble for reputations is more controlling than the search for truth?

Whatever the reason may be, let us, at least, have an end to these senseless complaints as to the scarcity of properly trained men "in whom the love of the work is greater than the desire for wealth and power" until some proper effort has been made to avail ourselves of the services of those who are able and anxious to round out a career of financial success and usefulness in the world by devoting the closing years of their lives to research.

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### CREPIS REUTERIANA AND ITS CHROMOSOMES

AN earlier note in this journal<sup>1</sup> called attention to the unfortunate confusion which had arisen concerning the identity and chromosome number of *Crepis reuteriana* Boiss. This species has now been obtained in living condition from three different localities in the Mediterranean region, and the chromosomes of two of these accessions have been examined and found to be closely similar. The number is  $n=4$ , and the chromosomes are much larger than those of *C. capillaris*. Unlike *C. capillaris*, this species is a perennial.

<sup>1</sup> E. B. Babcock, "Species of *Crepis*," SCIENCE, 70: 175-6, no. 1547.

It is much more closely related to *C. pulchra* and *C. palaestina* than to other annual species.

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### THRIPS AS CARRIERS OF FIG-DECAYING ORGANISMS

DURING the past decade the fig growers of California have suffered rapidly increasing losses due to various rots, decays and fermentations of their product, caused by cryptogamic organisms carried into the cavities of the figs by various insects. Caldis<sup>1</sup> shows that *Fusarium moniliforme fici* Cald., which causes a rot (endosepsis) of caprifig figs, is transmitted from the wild to the edible fig by the caprifying insect *Blastophaga psenes* L. Phillips; Smith and Smith<sup>2</sup> list a number of insects which feed upon or enter the maturing fruit of all varieties of figs. *Carpophilus hemipterus* L. and *Drosophila ampelophila* Loew. are by these authors and other investigators considered to be the main carriers of the organisms causing two of the principal fig diseases, smut (*Aspergillus niger* Van T.), and souring, under which name is included all kinds of rots and fermentations exclusive of smut and endosepsis. *Notoxus constrictus* Cas., *Blapstinus fuliginosus* Cas., *Cnemeplatia sericea* Horn, and a mite, *Eriophyes fici* Ew., are considered unimportant as disease carriers by the authors. It has been the general consensus of opinion that where caprification is not practiced no insects enter the figs while they are green and hard. In May, 1928, the writer collected several thousand uncaprifigged, hard, green figs of four varieties: Calimyrna, Adriatic, Kadota and Mission, from various parts of California. These figs were cut into halves and examined with a hand lens for evidence of insect invasion, mutilated and discolored floral parts, insect excreta or the insects themselves. Slightly in excess of 20 per cent. of the figs examined were found to be infested with thrips, specimens of which were identified by Mr. Dudley Moulton, of San Francisco, as *Thrips tabaci* Lind. and *Frankliniella* sp., probably *F. californica* Moul. The interior of two hundred of the figs showing evidence of insect invasion, and ten showing no such evidence, were cultured individually on nutrient media to determine their cryptogamic flora. Each of the two hundred thrips-infested figs yielded one or more of the following organisms: various species of Bacteria, *Rhizopus* spp., *Aspergillus* spp., *Penicillium* spp., *Fusarium* spp., *Verticillium* spp., *Spicaria* sp., *Hormodendrum* spp., and a number of yeasts. The ten figs showing no evidence of insect invasion yielded

<sup>1</sup> *Hilgardia*, 2: 287-324, 1927.

<sup>2</sup> Cal. Agr. Exp. Sta. Bull., 387: 1-38, 1925.