## MISCELLANEOUS

In British Columbia the pollination of cranberries, greenhouse cucumbers,

melons and holly has had little attention by research or extension workers.

## References

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## MUSINGS OF A RESEARCH OFFICER, AGRICULTURE (ENTOMOLOGY)

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Entomological research in Canada grew from virtually nothing in 1918 to a well organized profession 40 years later. There were at first more positions to be filled than trained entomologists to fill them, and so men with some background in zoology. and even amateur insect collectors, were pressed into service. It was not by chance that a number of those entomological pioneers were born in England, or were sons of English parents. The English, generally speaking, have a more lively interest in insects and other aspects of nature study than Canadians. Since the beginnings of entomology in this country at least nine of our universities have instituted Departments of Entomology, or courses in Entomology. The colorful day of the amateur entomologist turned professional is over.

Since many of the early problems in entomology had to be solved quickly and with no nonsense, the pioneers of the science tended, on the whole, to emphasize the practical viewpoint; and they did well with it. Then, as the more straightforward problems were cleared up, attention had to be paid to less obvious issues. There arose a growing band of bright and shining young college graduates complete with Ph.D. degrees and a tendency to regard their predecessors as well intentioned but really somewhat ignorant chaps. One scintillating mind has summed it up in a word—"nozzle-heads", he calls the pioneer entomologists and those of his contemporaries who work in applied research.

Entomology in much of the western world has been going through a sort of scientific adolescence, a period when on the slightest pretext, the amateur statistician churns his experimental results in an electrical calculator until finally they butter into some sort of statistical odds. There is an urge to substitute statistical formulae for common sense. Even simple bits of research may emerge so gaudily bedecked in statistical finery that only a knowing few would ever guess their true stature. Perhaps the entomologists, and other biologists, have been moved to strive for profundity in the belief that if the layman can comprehend it can't be science. Public awe of the mysteries of atomic science may have played a part here too.

Happily there are signs that Judgment, queen of human attributes, may be coming back into her own. What, in the argot, might be called the beatnik period of agricultural science seems to be on the wane. Of late more papers have been appearing in which the author, defying fashion, has been content to state in plain English the conditions of the experiment and the results. Readers have been given credit for sufficient intelligence to assess the results without recourse to mechanical predigestion.

Numbers of our agricultural scientists come from the towns and cities. and have never known the vicissitudes of farming. Although they might protest the point they have the townsman's outlook on farming, a profession that can be carried on successfully by an intelligent man with but little formal schooling. More by their actions perhaps, than by their words, they emphasize that they are scientists first, agriculturists second, and farmers not at all. Since the promotions of scientific workers in farming are not authorized by the farmers themselves it is not surprising that the agricultural scientist can drift away almost completely from the realities of life on the farm yet do better financially than if he had busied himself with the farmer's worries. Those of us who may be a trifle cynical have often noticed a tendency to identify intelligence with the business suit or, more particularly, with the white laboratory coat. But, in fact, the agricultural scientist has good reason to respect the ability and intelligence that are required for successful farming. Likely as not numbers of the so-called dirt farmers for whom, in the long run, he is working are at least his intellectual equals if not his superiors.

In the administrative circles of agricultural science there is an understandable proneness to equate a research worker's ability with the number and apparent profundity of his publications. The trouble is that to award a quid of salary for a quo of productive effort is to some degree a subjective matter as well as an objective one, and the administrator may be hard put to assess either aspect accurately. One of the crying needs in agricultural research, as indeed in many another field of human endeavour, is a better method of estimating the value of an individual's work to his fellow-man-some reliable means of stripping off the showier trappings of erudition and exposing what's underneath. This hardly seems to be the sort of job that the computer people will ever be able to solve; but maybe it is just as well that intrinsic human worth is susceptible mathematical to not analysis. In any case granting that every research worker should have to produce evidence that justifies his salary, today's pressure to publish can hardly be considered a boon to science. Certainly the literature of agricultural science, including entomology, is coming to wear pretty baggy britches. Its bulk seems to be greater than the substance warrants.

These remarks can be summarized in a few words. They urge less humbug in agricultural research, and more understanding of the farmer's problems. They urge less concern with the pay cheque, and more concern with a good day's work.