

After examining all the information on this subject we are of the opinion that there are many further directions in which scientists could be usefully employed. It is not easy to present an over-all picture of the situation, but it is obvious that we are faced with two distinct problems. Future developments will require limited numbers of scientists with highly specialized training in very restricted fields. The demand exists for small numbers of scientists trained to handle work in animal statistics, animal physiology, biochemistry, various branches of soil science, oceanography, marine biology, and other lines of work, in each of which for some time to come only two or three specialists are needed to collect local data, carry out routine investigations, or particular researches as required.

There are other researches in which the demand for scientists may be greater, though still limited. Scientists will be required for the development of food technology and building industry research in all their branches—metallurgy, wood-utilization, entomology, plant-diseases and wild-life researches. Here again, for the greater part, the demand is for specialists.

The two groups above have in common the demand for specialist personnel, a demand which cannot be satisfied by the import of such personnel, who are unavailable under present conditions and for some years to come other than from Central Europe, but probably must be met by the training of New Zealanders. This brings us to the problem of whether our educational system can be economically developed to train the bulk of these specialists, or whether our scientists are to be sent abroad for training. The decision must be made with consideration of the losses in the best talent which occur when our scientists are exported.

There are other opportunities for the employment of relatively larger numbers of scientists in such work as farm mechanization, station and farm management, geophysics, botanical, zoological and general geological researches, as well as the introduction of scientists into various Government Departments as field supervisors, field inspectors, and into district high schools as instructors.

We have not attempted to be exhaustive in this summary, but merely indicate the general features of the future situation to show that consideration must be given to the training available in this country, and to the diversification which is required to meet present and future needs.

IX. TRAINING AVAILABLE WITHIN NEW ZEALAND FOR SCIENTISTS

Basic training for pure science is provided in the post-primary schools and the four University colleges. The two agricultural colleges and the special University Schools of Dentistry, Engineering, Home Science, Medicine, and Mines cover many of the essential fields of applied science. As there are few barriers to attendance at post-primary schools and University colleges in this country, it is fair to say that, on the whole, opportunities for the study of science are good.

1. POST-PRIMARY SCHOOLS

Some introduction to science is provided for every pupil as part of the minimum required curriculum during the first three or four years of his post-primary schooling. Specialization in science, however, is not encouraged until the Sixth Form stage is reached. In general we agree with this policy. We believe that for future University students, and probably also for all pupils, the function of the secondary school is to provide a broad cultural foundation for later specialized knowledge. While we welcome the opportunities provided in the Sixth Forms of better secondary schools for selected pupils to concentrate on mathematics and science, we feel that this specialization should not be taken too far, and that nothing should be allowed to stand in the way of the development of the adolescent as a person.