

8. SUMMARY OF DISCUSSIONS

The following is a precis of the discussion at the open session held on the final day of the Conference:

QUARANTINE SEED LISTS

Dr. T.H. Harrison asked for comment on criteria which might be used in assessing quarantine lists. He posed two principal questions:

1. If control measures exist, should a species still be included?
2. Since opinion is divided as to the seriousness of skeleton weed, should seeds of this species still be totally prohibited?

Discussion suggested that

1. There was a need to prevent the introduction of new ecotypes of weeds;
2. there was scope for revision of the quarantine list;
3. there was a need to prevent interstate movement of weed seeds.

Dr. Harrison informed the Conference that action for revision of the list would be initiated by the Department of Health and the new list would be discussed at the Meeting of Seed Analysts to be held in 1962.

DAMAGE TO HORTICULTURAL CROPS BY AERIAL SPRAYING

Mr. S.L. Everist informed the Conference of damage which had occurred in Queensland by negligent use of herbicides from the air, and explained the State legislation which requires pilots to know the properties of the material being used. He stated that the Department of Civil Aviation would be assisted by expression of delegates' opinions, and intimated that if necessary the Department would consider amending the regulations.

He enquired of the position in other States and in New Zealand.

An Agricultural Chemicals Act was passed in April 1960 in New Zealand. Under this Act, a committee was established to consider the agricultural use of hormone dusts and herbicides in different areas. It is hoped to reduce damage by intensive education of pilots rather than by restrictive legislation. Courses will be conducted at twelve monthly intervals - it is anticipated that these courses will be designed to impress on operators the risks involved rather than to impart detailed technical knowledge.

In Western Australia it has been found necessary to declare specific areas as hazardous and to ban aerial spraying.

Aerial spraying had been discussed by a committee in Victoria, which also recommended education rather than legislation. In general, damage caused by aerial spraying is the responsibility of the operator.

Very little damage has occurred in New South Wales, the only serious case being damage to bananas on the North Coast. There is, however, concern over the possibility of drift in valleys from the use of herbicide mists.

Spray drift had been discussed at a Conference on Aerial Agriculture and was a live issue in the Aerial Agriculture Operators' Association.

DISTRIBUTION OF WEED SEED BY WATER

Mr. A.N. Johnston enquired whether there was any information on distribution of weeds by irrigation water.

There was no specific information on this point. The importance of rivers in distribution was stressed and the pattern of spread of Oxalis quoted as an example.

CONTROL OF ALGAE

Mr. R. Pengelly asked whether algae in drinking water were responsible for poisoning of sheep, and what control measures were available.

It appeared that cases of poisoning were rare and likely to occur where wind action had caused a concentration of algae, leading to ingestion of excessive quantities.

Effective algal control could be obtained with 2 oz. simazine per million gallons of water. In New Zealand simazine was similarly used at 5 p.p.m., while Phygon at 6 lbs/acre ft. had proved effective in U.S.A. However, these treatments were not effective against blue green algae, which are the main problems in tropical areas. The more soluble triazines are promising for the control of blue green algae.

CALTROPS (TRIBULUS TERRESTRIS)

Mr. K.R. Green sought information about an alleged increase in herbicidal efficiency by mixing 1 lb of T.C.A. with 2 lb of 2,4-D.

There was no confirmation, but Mr. G.A. Pearce reported a similar alleged increase in efficiency in the treatment of spiny emex by adding sodium chlorate to 2,4-D.

NURSERY STOCK TREATMENT

Mr. G.W. Douglas drew Conference's attention to the dissemination of weeds, particularly bulb and corm forming species, in soil around nursery stocks. He enquired of the practicability and costs of soil fumigation or other treatments before despatch.

It appeared that concentrations required to kill dormant corms could well prove injurious to nursery stocks, and would certainly be expensive.

Suggestions for soil fumigation in the nursery itself were made and the following costs quoted; forestry nurseries in South Australia are contract fumigated annually for £20 (area and chemical involved were not recorded). Victorian nurserymen estimate methyl bromide soil fumigation at £1000 per acre; kikuyu can be eradicated from fine turfs by soil fumigation, the cost to golf clubs being approximately £100 per green; in Queensland methyl bromide fumigation costs approximately 11s.0d. (1½ lb/100 sq. ft.) plus cost of plastic sheeting per 100 sq. ft. - an average of 7d. per sq. ft. was quoted during discussion.

As an alternative to soil fumigation it was pointed out that the removal of soil from the root system followed by packing in moist sphagnum was effective and non-deleterious to plants. This was a quarantine requirement for all material imported from overseas. No serious losses had occurred, and there should be virtually no risk with the short periods required for intra- and interstate shipment.

CONTROL OF AQUATIC WEEDS

Mr. K.A. Morgan drew the attention of delegates to a new material, acroline, which is now under co-operative test with the Victorian State Rivers and Water Supply Commission for control of aquatic weeds in irrigation drainage channels. The material is added at the head of the drainage system.

Its use in supply channels is being considered. Although toxic to crop plants, harmful effects could possibly be overcome by using a concentration of about 15 p.p.m. over a long period. An extension of the irrigation season may be needed to minimise risk to crop plants.

SOUTH AFRICAN BOXTHORN

The variable results obtained in the control of this species were mentioned by Mr. T.M. Doyle. Winter sprays in 1956, a particularly wet year, gave good control, but this has not been repeated since. 2,4,5-T, both as basal and overall spray, has been ineffective, but 2,4-D as a basal spray shows some promise.

In Queensland one per cent 2,4,5-T in distillate is effective as a basal spray. Repeat treatments may be needed in very large multi-stemmed plants, and small plants should be cut before application. Although there is no really marked seasonal variation in effect, winter or early spring spraying appears superior to summer application.

Foliage sprays with 2,4-D are ineffective.

Overall sprays with 2,4-D ester and amine have been effective when the plant is in leaf, but ineffective when in flower or fruit. In N.S.W. spraying in August has been effective, while May applications have been ineffective. 2,4-D and 2,4,5-T (2 per cent in oil) are equally effective as basal sprays.

Early summer applications of 2,4-D and 2,4,5-T in oil or water as basal or overall sprays have given poor results in Victoria. A rapid kill of top growth is quickly followed by regeneration. A range of concentrations from 1 per cent to 3 per cent has been tested.

New Zealand experience has been that 2,4-D in emulsifiable oil is the only successful treatment.