Since the first private operators began aerial top-dressing work, experience gained has enabled improvements to be effected in flying technique and equipment, so that the units now in the field are giving the farmer an efficient and economic service which compares favourably with other methods of distribution.

The development of aerial top-dressing work has progressed so quickly that a shortage of aircraft in New Zealand has made it necessary for operators to investigate the supply position from overseas.

Apart from the benefit to the individual farmer, it is generally appreciated that aerial top-dressing can ultimately affect the national economy through increased primary production. It is apparent, even at this stage, that the aerial method of top-dressing marginal lands alone will soon be carried out on such a large scale that enormous areas of unproductive land can be brought back to use.

The Branch is doing all it can to encourage this new phase of civil aviation, and the appropriate sections are keeping in close contact with the operators in an effort to assist in further improving the safety and economy of operations. Liaison is also maintained with overseas Administrations, and any useful information received is passed on to the operators in New Zealand through the medium of the New Zealand Aerial Work Operators' Association.

The scale of operations is greatly affected by the supply of superphosphates, and unless the present shortage which exists in some areas can be alleviated, it is probable that some operators will be adversely affected.

To date, eight organizations are actively engaged in aerial top-dressing work, and further companies are at present in the process of formation.

Up to the end of the year under review a total of 5,003 tons of superphosphate has been distributed by air, covering an area of 48,741 acres, and involving 2,137 hours of flying-time.

It has been successfully demonstrated that trace elements such as cobalt can be sprayed in liquid form by light aircraft, and one firm which has carried out extensive experiments in this work has distributed over 17,000 lb. of cobalt solution over 5,000 acres. In this case the flying-time amounted to 18 hours 45 minutes.

Aerial seed-sowing has developed in parallel with aerial top-dressing, and during the past year light aircraft were used to distribute 154,050 lb. of grass-seed over 25,673 acres.

Rabbit-control is another phase of aerial work which has developed considerably over the past year. The aerial method of spreading phosphorized pollard bait has been found to be most effective, as aircraft can easily treat areas difficult of access by ground means, and can cover areas on a scale which would otherwise be impossible. Poison rabbit bait spread by air amounted to approximately 107 tons.

Light aircraft are now playing an important part in the deer-control programme being carried out by the Department of Internal Affairs. Supply dropping to deer-cullers has been carried out over some of the most rugged and remote areas of the country, requiring considerable skill on the part of the pilots undertaking this work. A high degree of accuracy has been achieved, the percentage of loss being estimated at only 5 per cent. of the material dropped. Since this type of work commenced, a total of 135,000 lb. of supplies has been dropped, of which 100,000 lb. have been dropped by light aircraft.

During the year the one company specializing in large-scale aerial photographic work carried out aerial mapping operations in various parts of the country, involving the coverage of approximately 4,000 square miles of land. Some of the larger projects were carried out in the Canterbury, Marlborough, Lake Manapouri, and Heretaunga Plains areas. Using a Beechcraft AT–11 aircraft, 25,325 miles were flown, the flying-time being 140 hours.

The aerial mapping photographic work was normally done at altitudes ranging between 12,000 ft. and 17,000 ft.