

The Agricultural Aviation Industry

Industry overview

Aerial agricultural operators apply three main types of substances where ground based application is not possible, or not the most efficient or effective means of application; agrichemicals, fertilisers and VTAs. Aerial application has also been used to apply substances for bio-security purposes, such as the eradication of painted apple moth in Auckland.

Aerial operations can be from either fixed wing aircraft (aeroplanes) or helicopters. The type of aircraft used will depend on the nature of the task to be undertaken and the target area. For instance, helicopters are better suited to follow complex boundaries, such as setbacks from streams or watercourses, whereas fixed wing aircraft are suitable for applications over larger areas.

There are approximately 50 fixed wing aircraft and 250 helicopters (as measured in 2014) that undertake agricultural aviation work in New Zealand. There are no restrictions on what area of the country an operator can work, with many operators working in a number of regions throughout New Zealand. Each year about 129,000 hours of flying time (helicopters and fixed wing) can be attributed to agricultural work, with a trend towards more helicopter hours (approximately 70% of total flying time) and less fixed wing hours. For more information on the industry, refer to [Technical Information relating to the Agricultural Aviation Industry](#).

Industry regulations and best practice

There are a range of relevant industry regulations, codes, and best practice standards that operators comply with.

In terms of **flight safety**, agricultural aviation is regulated by the **CAA** General Aviation Group. CAA operates a rules based system, and all operators and pilots are required to comply with the standards set by these rules. To operate an aircraft for agricultural aviation purposes a pilot requires a Pilot Agricultural Rating from CAA which permits the pilot to operate at low levels. It is a flight safety requirement.

Environmental management is a key component of industry regulations and best practice. Pilots require a Pilot Chemical Rating issues under Civil Aviation Rule Part 61 to undertake discharges from an aircraft.

Environmental management is addressed by the industry through various programmes, standards and codes of practice. Some are approved by regulatory authorities to meet specific legislative and regulatory requirements, while others have been developed as good practice.

The most common programmes and standards are:

Agrichemicals:

NZS8409: Management of Agrichemicals – an approved code of practice by the EPA (HSNO COP3) and NZFSA.

Fertiliser:

Farm Airstrips and associated fertiliser cartage, storage and application: safety guidelines, Department of Labour and CAA.

Code of Practice for Nutrient Management.

Fertmark Code of Practice.

The Aerial Spreadmark Code of Practice.

VTAs:

Safe Handling of Pesticides: Standard Operating Procedures, produced for DOC
Code of Practice for the Aerial Application of Vertebrate Toxic Agents (part of
AIRCARE™ accreditation programme).

Aerial 1080 Pest Control Industry Guidelines, National Pest Control Agencies.

Guidelines for the Safe Use of Sodium Fluoroacetate (1080), Department of
Labour.

Noise:

**AIRCARE™ Environmental COP for Aircraft Operations - Noise Abatement
which is based on Fly Neighbourly guideline** (produced by Helicopter Association
International).

Quality Assurance Programmes - there are three systems currently in place for general
and agricultural aviation (excluding airlines):

Individual aviation operator-created systems that are audited against AS/NZS 4801:2001 (ACC
WSMP) or the International Mining or Oil and Gas Producers. Both are focused on aviation rule
compliance, SMS, experience and people.

AIRCARE™ is an integrated accreditation programme for all of an aviation business, which
brings flight safety and environmental management together into one safety assurance programme.
There are three parts to the programme: pilot competency, safety management system and third
party audit. It is audited by Navigatus against their industry based standard Further information on
AIRCARE™ is provided in the Appendix.

The Aviation Industry Group (AIG) system uses a similar structure as AIRCARE™ with safety
manuals and codes of practice. This system is designed to achieve the ACC WSMP requirements.