# Legislative Change Brings Drones into Plant Protection Research – What's next?

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# Content

**Background**

**EU legislation,  ban on aerial application of pesticides**

**Growing interest in drones**

**Report on the use of drones in plant protection**

**Legislative change**

**upcoming**

# Background

Aerial application is rarely used in FIN nowadays,

In the 70s aerial application was used against brushwood in forestry, the use was restricted in 1975

The last aerial application in recent years was done in 2008 against an insect pest (*Neodiprion sertifer*) in a pine forest (700 ha)

SUD implementation 2011 -> BAN on aerial application + strict derogation rules

No application received for derogations for aerial applications in FIN since 2008.

EU strategies call for a 50 % reduction of risk and use of plant protection products (2020).

# Growing interest in drones

In the late 2010s **several inquiries** and questions on the **possibility to use drones** in the application of plant protection products

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CA **report** on the use of drones in plant protection (2021)

Main outcome: **Lack of risk assessment tools** for the authorisation of plant protection products for aerial spraying

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Decision to start by **enabling the use of drones in research trials**

As science evolves the decision can be changed

# Amendment of the Act on plant protection products (1563/2011) in October 2024

- Safety and Chemicals Agency **Tukes may issue trial permits** that **enable** the **application** of plant protection products **with an unmanned aerial vehicle** (drone) **in experiments** or trials for research and development purposes,

- Act 19.2 §

Safety and Chemicals Agency Tukes may issue trial permits according to article 54.1 of 1107/2009*) for trials where the plant protection product will be applied by an unmanned aerial vehicles.

- Detailed provisions in a Ministerial Decree

*) Regulation (EU) 1107/2009 on the placing of plant protection products on the market

# Ministerial decree

- The ministerial decree contains
  provisions that specify the provisions of the law on the application of plant protection products with unmanned aerial vehicles (drones) in experiments or trials for research and development purposes
  - conditions for trials (eg. buffer zones)
  - content of the application for a trial permit
  - trial report content, that has to be presented to Tukes after the trial
- Entry into force 25.6.2025

# Conditions for trials

Only **authorized plant protection products** may be used.

A **buffer zone of 100 m** has to be left to:

1) the closest inhabited building and its yard/curtilage;
2) a water course, water tank, drinking water protection area;
3) a ground water area, if the plant protection product to be applied has a ban on use in ground water areas;
4) a nature protection area according to the act on nature protection;
5) animal housing and apiaries;
6) a school or a kindergarten;
7) the next crop, if it is different from the crop in the experiment

# Conditions for trials, cont.

The Safety and Chemicals Agency **Tukes may approve a narrower buffer zone** if the applicant leaves a reasoned application explaining that applying a 100 m buffer zone undeniably can be seen as unnecessary.

The application of plant protection products from an unmanned aerial vehicle has to be controlled. The **application has to be stopped, if visual contact with the vehicle is lost**.

Before the start of the trial, it should be ensured that there are **no bystanders in the trial area**.

The **person responsible** for the trial, or at least one person taking part in the planning or execution of the trial **has to have the plant protection exam (**act on plant protection products, 10 §)

# Content of application for a trial permit

Applications for trials shall be sent to the Safety and Chemicals Agency Tukes at the latest 2 months before the start of the planned trial.

The application shall contain the following data:

1) name and contact information of the applicant and the person responsible for the trial;
2) objective of the trial;
3) testing site (locality, code of agricultural holding or if that is missing the property identification number, size of testing site, holder of testing site);
4) date and time of trial;
5) plant protection product used in the trial (name, composition, application dose, way of application, label text, if the product is in use in the EU);
6) residue data, if available, proposal for how to use the yield both for plants used for food and feed;
7) on the toxicity and on other healt effects of the product, if available;
8) on the behaviour and effects of the product in the environment, if available; and
9) occupational health and safety (guidance on personal protective equipment, safety data sheet).

# Content of application for a trial permit, cont.

For trials where the plant protection products will be applied by an unmanned aerial vehicle, the application for a trial shall also contain the following data:

1) a **description of the performance of the trial**;
2) a **map**, on which the starting point and the buffer zones are marked;
3) application equipment (brand, type, weight at start, tank volume for spraying liquid);
4) flight height during application;
5) flying conditions.

# Trial report content

**Holder of trial permit has to send a report of the trial to** Safety and Chemicals Agency **Tukes** at the latest three months after the expiry of the trial permit.

Report has to contain data on:

1) name and contact details of holder of trial permit and person responsible for the trial;
2) objective of the trial;
3) testing site (place, code of agricultural holding or if that is missing property identification number, size of trial area, holder of trial area);
4) time of trial performance (when was the plant protection product used, total duration of the trial);
5) test product (plant protection product – name, composition, application dose, way of application, label text, if product in use in the EU);
6) weather data for the trial (air temperature, wind speed and cloudiness at application);
7) results of the research as well as their analysis and conclusions.

- For trials, where the plant protection product has been applied by an UAV, the report shall also contain the last part of data in the application (performance description, map etc).

# Tukes – guidance on applications

Instructions on applying for a permit can be found on www.tukes.fi
(at the moment in Finnish only)

Exciting to see what kind of applications there will be!

# And now?

SUR (a legislative proposal from the EU commission in 2022 on the sustainable use of pesticides) did contain a part on UAVs, but the proposal was withdrawn.

No clear plans from the EU commission on new proposals

**CA report** (2021) listed possible first uses:

- Application of repellents in forestry (against elk and deer)
- Application on small areas on golf courses
- Horticultural uses
- Spot applications (control of wild oats, perennial weeds like *Cirsium* and *Sonchus*, couch grass)
- Application in orchards, raspberry, strawberry
- Applications on wet ground (late blight control)


Thank you!
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