

Still crazy about spraying?

You may be getting tired of being warned against careless use of pesticides. However, too many people still use pesticides from force of habit, without considering the actual need, or without trying to find healthy and environmentally sound alternatives. Others still "forget" to use face masks, protective clothing, shoes and gloves.

Yes, most farmers, gardeners and fruit growers in Norway have made great improvements regarding the use of pesticides. The majority of professionals follow the recommended routines and protective measures. Nevertheless, safety precautions are also often omitted because growers "have no time" or "cannot afford it".

So, once again, we present some important advice on the use of pesticides. Remember that good planning and routines are just as important as protective gear when applying pesticides. Therefore, start off by reading the label and the safety data sheet before using pesticides.

Avoid skin contact

Pesticides are easily absorbed through the skin. Remember to protect your skin with gloves and protective clothes. Use a face mask or protective goggles to protect yourself against splashes when mixing the pesticide and loading the applicator. When field-spraying by tractor, it is usually sufficient to use liquid-proof clothing. If you have to walk through a newly sprayed field, work in spray mist or clean spraying equipment, you should use rain clothes.

Always change your clothes if these are splattered with pesticides. Unwashed protective clothes must be kept separately from other clothes. Don't expose your family to pesticides by taking home contaminated working clothes.

Don't overwork yourself

Gasses, steam, dust and small droplets of pesticides can easily be inhaled and absorbed into your bloodstream via the



The naked truth: some still prefer to spray in their birthday suits.

lungs. When working hard, you breathe at a higher rate than when relaxing, and you thus inhale more contaminants. The best protective measure is to use a respirator with a correct filter.

Healthy skin

Sore, chapped skin can absorb more than healthy skin. After having been in water, or having used airtight, clammy gloves for a while, the skin's permeability increases two to threefold. Some pesticides are diluted in solvents, which increase the skin's permeability even more. Make sure to apply a good skin cream to help your skin remain oily. Remember, healthy skin is more resistant to chemicals!

Protective gloves

As a rule of thumb, do not use disposable gloves for spraying, since these are made of very thin material. Be aware that permeability varies a lot between the different materials. Gloves made of natural rubber (such as dishwashing gloves) and leather gloves are also not recommended for spraying. Read the safety data sheet in order to make the correct choice of protective gloves!

Wash your hands – then smoke

Direct ingestion of pesticides is usually the result of accidents, poor hygiene or

pesticide residues in food. Children are especially prone to poisoning, so make sure to securely store pesticides. When not in use, pesticides should be kept in a locked cabinet. The cabinet should be ventilated and clearly marked ("toxic!"). Remember to remove and clean all equipment that has been used to measure and mix pesticides.

If you have been working with pesticides, remember to always wash your hands before eating or smoking. Eating should never take place in the same room, or out in the field, where you have been applying pesticides.

Not for pregnant women!

Some pesticides can cause hereditary defects, cancer and foetal damage. Pregnant and nursing women should therefore not be permitted to spray pesticides. In addition, heavy and clammy protective gear puts extra strain on pregnant women.

Both females and males of "reproductive age" should be especially cautious when working with pesticides. Genetic damage in reproductive cells can have effects on future generations.

Nurseries and Greenhouses: Require additional attention

In ornamental greenhouse crops, pesticides are often applied by mist sprayer, fumigation or high-pressure sprayer. Pesticide residues thus often remain much longer on tables, equipment, door handles and pots than in the air. In order to avoid adverse effects or poisoning from pesticides, good routines for the use of protective gear and the labelling and locking of the greenhouses are important.

The time it takes for pesticide residues on leaves and equipment to degrade varies. Whenever possible, all spraying should be done on Friday afternoons, so that the greenhouse can be aerated and left vacant until Monday mornings.

It may be difficult to know for how long you should avoid skin contact with sprayed areas and plants after application. If you do not find information about this on the pesticide label or the safety data sheet, it is recommended to avoid skin contact for one week after spraying.

The use of fumigants and cold mist

sprayers is especially hazardous. When using mist sprayers, tiny droplets are formed which are easily inhaled.

Remember your apron

You should always wear gloves when working with plants. This is important in order to avoid contact with pesticide residues (including growth regulators) as well as plant sap, both of which can cause allergies. Strong acids and disinfectants, which can be hazardous to your health, are also used in greenhouses.

In addition to protecting your hands, it is often necessary to protect forearms, chest

and stomach. Remember to use an apron. The skin on your stomach is thin and it is easy to come into contact with pesticides when carrying plant trays, leaning against tables, etc.

Be extra careful when working with imported plants. These are often treated with pesticides that are prohibited in Norway due to their health or environmental effects.

Reproductive disorders

Many of the pesticides used in greenhouses can be harmful to pregnant women or affect your reproductive ability. Such substances can also harmfully affect men. Reproductive cells and sperm cells do not have the same ability to repair genetic damage as other body cells do. These cells are thus especially sensitive to substances that can cause genetic damage, such as many carcinogens. About 65 % of all foetal damages have unknown causes. There is reason to believe that some of these cases can be caused by disorders in the sperm cells.

For pregnant women, it is especially important to observe the recommended delay period before re-entering the premises after spraying. Pesticide residues can be present at low concentrations even after quite a long time. These can present a health hazard to pregnant women even though considered relatively harmless otherwise. Finally, pregnant women should not work in greenhouses that are sprayed regularly, because many substances degrade slowly and accumulate in greenhouses (e.g., some organophosphates and fungicides).

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When working in greenhouses, always use protective gloves and an apron.

