

# SPRAYER SAFETY



Hardi AM-PS de-mountable sprayer on a Jacobsen Workhorse

If there's one thing certain to upset the more senior members of the British population, it's an announcement about the introduction of more rules and regulations concerning another aspect of our daily lives. Whether emanating from Whitehall or Brussels, the arrival of yet more red tape is sure to make the blood boil and bring cries of 'molly coddling', 'wrapped in cotton wool' and 'never would have happened in my day', from the many who have more than solely an historical interest in the Second World War.

Yet, for anyone who uses or comes into contact with substances designed to control or kill pests, weeds and diseases, the regulations encompassing the safe use of pesticides and other chemicals must be among the most sensible and appropriate introduced during the past ten years. They are the Control of Pesticide Regulations 1986 and the Control of Substances Hazardous to Health Regulations 1988, supporting and reinforcing existing legislation designed to safeguard the health, safety and welfare of employees, golfers, and all others who may come into contact with the day-to-day maintenance activities on a golf course.

The principal statute governing activities in the work place is the Health and Safety at Work Act 1974. It places a duty on any establishment with five or more employees to have a written statement of its policy for ensuring health and safety. Furthermore, since 1 January this year, there has a requirement for employees to carry out a risk assessment and to record all significant findings. There are at least 15 further Acts and Regulations currently in force in the UK concerning health, safety and welfare at work. At privately-owned clubs, all legislation will normally be enforced by the local authorities environmental health department. In the case of public courses, the inspector will come from the Health and Safety Executive (HSE).

Inspectors are essentially there to inspect and enforce regulations. However, both bodies are able to advise and assist employers in meeting their legal obligations. Points on which employers have been pursued include failure to make provision for first aid treatment to be

available for employees who are injured or become ill at work; failure to provide sufficient instruction, information or training in a task to minimise the risk to the employee or others; and failure to train and appoint one person to carry out specific prescribed duties.

Under regulations in force in both the UK and continental Europe, all persons engaged in spraying operations must use specified personal protective clothing and equipment. At the same time, under the risk assessment requirements, it is important to identify, control or eliminate the risk from spray chemicals by other means, as far as is reasonably practicable.

Employers are required to issue spray operators with the following personal protective equipment:

- chemical-resistant gloves.
- a face shield
- coveralls
- rubber or plastic boots.

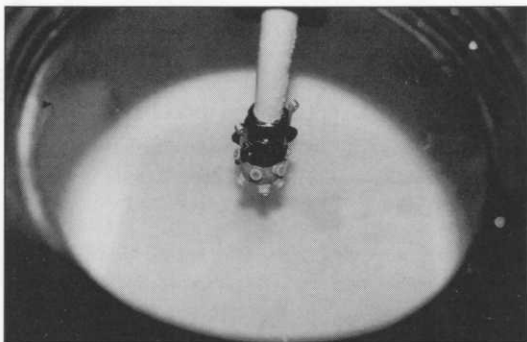
The HSE points out that disposable spraying coveralls will protect against most of the chemicals likely to be used on golf courses. It is required of every manufacturer that they provide all necessary information on the suitability of their protective equipment. However, if in any doubt, it is important to seek advice from the manufacturer or supplier on suitable protection for the chemical being applied.

British manufacturer, Allman, offers two protective kits for sprayer operators. The Allclear contains 11 essential safety items including goggles, visor, nitrile gauntlets, a washable coverall and apron, pure air respirator and eye irrigator. It costs less than £90 and each item can be replaced individually as required after use.

For about £30 less, the company's One-Pak kit includes the vital face and hand protective items but no respirator or irrigator and has disposable coveralls which can be replaced for £7.50 each. Irrespective of whether one is wearing reusable or throwaway overalls, it is essential that storage facilities are provided to keep spraying clothing and equipment separate from normal working clothes. Furthermore, hot and cold water wash facilities must be available to clean gloves, visor and boots before storage.

Details on a specific pesticide and instruction covering its safe and effective use must be provided on the containers of all approved agricultural pesticides. For maximum safety, never decant a chemical into another container and never use a container for any other purpose. Empty bottles and

Thorough washing of the sprayer tank is assured by Lurmark's latest high capacity Tankclean Jet



# AND CHEMICAL CARE

canisters should be rinsed thoroughly and stored in a secure, designated storage bin awaiting proper disposal.

In certain cases the HSE recommends the use of closed transfer systems for moving undiluted pesticides into the sprayer tank. Equipment to ensure the safe transfer of chemicals is now available from most of the leading manufacturers and from ancillary suppliers.

The Chemical Transfer and Rinse from Martin Lishman is fitted easily to the sprayer tank. It consists of a bowl over which the inverted container is placed. Pressing down on the container forces a spear within the bowl through the foil seal on the container. Following the emptying of its contents, the container is rinsed automatically ready for safe disposal. Costing £185, the device can be fitted with a partial measure cap to allow part emptying of containers.

A chemical induction bowl with integral rinsing probe is available on Hardi's amenity sprayers covering tractor-mounted, trailed and de-mountable models from 200 to 800 litre capacity. Developed from its agricultural sprayer range, the 25 litre hopper includes a measuring scale and has a wash-down ring to rinse all residues from the walls of the hopper. The rinsing device has a multi-nozzle head over which the empty container is placed for a thorough rinsing, with washings going into the tank for safe disposal.

For anyone in doubt, advice on safe, correct disposal of empty containers can be obtained from the environmental health department of their local authority or the HSE. The law lays down a number of specific requirements regarding pesticide stores. Although it can be a separate structure or be situated within an existing building, in every case it must be:

- Suitably sited
- of adequate capacity and construction
- designed to hold spillage
- properly lit and ventilated
- resistant against fire and frost
- designed to allow containers to be safely stacked and moved in and out of store
- clearly identified with a cautionary warning sign
- kept locked except when in use.

One of the latest entrants to the purpose-built chemical store market is Go-Store, offering a range of free-standing walk-in units suitable for use outside or inside an existing building. All incorporate heavy-duty shelving, a 9" spillage retention sill, ventilation, thermostatically-controlled frost protection, lighting and high security locking. Typical price for a store measuring 8' x 6'3" x 6'3" is in the region of £1550. Smaller units are offered by Portasil. Its 'Chem-vaults' are totally waterproof and include ventilation, spillage retention and high security multi-point locks. A check list is required of all pesticides kept in the chemical store and this should be compiled and kept safely close at hand – but not in the store.

Health and Safety Executive guidelines say that greenkeepers should avoid storing more pesticides than are necessary and that a system of stock rotation be employed to ensure that older stocks are used first. Provided correct measurement has taken place, there should be little or no diluted liquid remaining in the sprayer's tank after treatment has been completed. However, there will be a low concentration of pesticide in the first rinsings from the tank which will need safe disposal. These can be applied to the turf provided there is no conflict with any previous treatment and they are within the label directions. Alternatively, the rinsing water can be combined with a fresh batch of



diluted pesticide for spraying on another part of the course.

If neither of these alternatives is suitable or acceptable, operators should seek advice from the environmental health department of the local authority, the HSE, or the chemical supplier. Automatic tank cleaning devices are recommended as an alternative to the hand held hose and scrubbing brush.

Nozzle specialist Lurmark has extended its Tankclean range with a new wash jet giving twice the flow rate of its stable-mate. Suitable for large capacity tanks and where thorough cleansing is vital to avoid chemical cross-contamination, the new unit offers a maximum water throughput of 109 litres/min at 3bar pressure. The unit is designed for permanent fixing through the top or lid of the sprayer tank, and uses a cluster of cone jets to cover the complete inside of the tank. It costs about £60.

Guidance on safe chemical handling and disposal can be found in the 'Code of Practice for the safe use of approved pesticides in amenity and industrial areas' This publication, available from BIGGA HQ at £12 post inclusive, gives advice on meeting the two principal regulations covering the use of pesticides. The most recent of these, entering the statute books in 1988, is the Control of Substances Hazardous to Health regulations (COSHH). These lay down the essential requirements and clear procedures for the control of hazardous substances and the protection of anyone exposed to them. Under the regulations, employers are obliged to carry out a COSHH assessment to identify the possible risks to health on their premises and the precautions that will need to be taken to minimise or eliminate them.

Guidance is available from the local authority or HSE regarding compliance with COSHH and carrying out a risk assessment on your course. This spring, the HSE plans to publish a guide to the essentials of health and safety relating specifically to golf courses. The guide will encompass every working practice likely to be encountered and provide practical guidance on identifying, reducing and eliminating risks to employees and others. In the meantime, there is a comprehensive range of free leaflets and booklets currently available from the HSE relating to health and safety at work. Information and literature on these publications can be obtained from the HSE on any of the following numbers: 071 2210870 (London); 0742 752539 (Sheffield); 051 9514381 (Merseyside) or from BIGGA HQ.

**Portastor's Chemvault units are suitable for storing a range of hazardous substances in accordance with all current legislation**