

## **Some Health issues for Gardeners to consider**

We have sections on the website about various Plant Health issues but mention was made at a committee meeting of concerns regarding health of gardeners using commercial compost. There have, over recent years, been reports of respiratory illness after use of bagged composts. These reports appear to be on the increase.

With these questions in mind this short paper has been written to alert members to certain health issues to bear in mind while gardening. It is not intended in any way to deter gardeners as the health benefits of gardening by far outweigh the problems which can occasionally arise. However, having knowledge of potential problems and awareness of precautions which can be taken to avoid dangerous situations, helps to keep us all safe.

Happy Gardening.

### **Advice on handling compost and water storage in the garden**

Over the past few years there have been various reports in the press concerning health hazards in the form of infectious organisms associated with the use of commercial compost. These appear to be on the increase, possibly due to the move from use of peat to other materials in such composts. There are also hazards due to other infectious organisms to be found in gardens and it is as well for all gardeners to be aware of these and take precautions against them.

The RHS website has quite a lot of information on its website which can be viewed via

<https://www.rhs.org.uk/advice/health-and-wellbeing/minimising-health-risks-in-the-garden>

The following summarises the main points from this site. Generally elderly gardeners and those with a suppressed immune system are most vulnerable but it is important for everyone to be aware of potential problems.

**Legionellosis** This disease is caused by a bacterium. Legionella longbeachae occurs in soil and compost. Infection with this agent can lead to a respiratory

disease. The more common L.pneumophila occurs naturally in water courses but can multiply in standing water to potentially harmful levels when the water temperature is between 20 and 45degrees c.

*Precautions should be taken when opening bags of compost or turning composts heaps especially when they are dry and dusty. Avoid using compost in enclosed areas and do not store in greenhouses where contents may get very dry and hot. Damp down your compost heap if it gets very dry. Consider using a mask when turning the heap.*

*Empty hose pipes of water after use to avoid water standing in pipes which heat in the sun. Water butts should preferably not be in full sun. This is not always possible but they can be painted white or insulated to counteract overheating.*

## **Bioaerosols**

Naturally present in decomposing material are a variety of airborne micro-organisms including spores of bacteria and fungi. Aspergillus fumigatus is an example of a fungus whose spores occur as a bioaerosol. These can be breathed in when turning a compost heap, particularly in warm weather. Such spores can also be present in bagged compost. Those with an existing chest infection such as asthma, bronchitis or those prone to allergies are most at risk of contracting a respiratory infection by inhalation of these agents.

*Precautions are to damp down compost heaps before turning and to wear a mask. Open bagged compost in well ventilated areas and do not keep in the greenhouse.*

## **Tetanus**

The tetanus bacterium is found in soil and gains entry to the body via cuts and grazes. Tetanus is a particularly nasty illness and can cause death in 10% of cases.

*Tetanus vaccination is very successful and it is routinely given in childhood. Those who work regularly in contact with soil should ensure that their vaccinations are up to date. It is recommended that boosters are given every ten years. Any injuries such as cuts or scratches on hands should be covered when working in the garden. Serious injuries in the garden should be taken to a doctor and consideration given to giving another tetanus vaccination. Wearing gloves is recommended.*

## **Weil's disease (Leptospirosis)**

This is a bacterial infection which can be carried by rodents (rats and mice). The bacterial agent is carried in water or wet vegetation contaminated by urine from rats. Rat urine can also carry salmonella bacteria. The bacterium can enter the body via uncovered cuts and scratches.

*Tops of compost bags should be rolled over to prevent entry by rodents. Meat, fish and egg remains should not be placed in garden compost containers unless vermin can be excluded. Water butts should be covered. Wearing gloves is recommended.*

### ***To summarise precautions to ensure safety in the garden***

- ***Wear gloves***
- ***Do not breathe into compost bags on opening***
- ***Open and use bags in well ventilated area***
- ***Do not store bags of compost in the greenhouse***
- ***Fold over the tops of compost bags when not in use***
- ***Moisten potting media if dry***
- ***Dampen dry compost heaps before turning or using***
- ***Consider wearing a dust mask when dealing with composts***
- ***Empty water from hoses after use and do not leave full hoses in sun***
- ***Keep water storage containers clean by emptying and scrubbing out once a year. Paint with a light colour, insulate or keep in shade.***
- ***Do not use stored water for mist irrigation or sprinklers if the temperature of the water is above 20 degrees.***
- ***Keep tetanus inoculations up to date***
- ***Discourage rats. Do not put cooked food, meat, fish or eggs into compost bins***
- ***Use waterproof protection on legs and arms when cleaning ponds***
- ***Wash hands after gardening and before eating.***