

Tankwater dangers

Your roof water supply could make you ill, a safety study shows.

Thousands of people relying on rain supply for drinking and other household uses are being advised to make sure their roof catchments are clean, to regularly inspect and clean gutters and tanks, and to periodically test the water for disease.

The advice comes from Massey University microbiology and communicable diseases lecturer Stan Abbott, who is involved in a study to determine gastrointestinal disease rates linked to roof-collected rainwater.

Bugs found in roof runoff include salmonella, campylobacter,

giardia and cryptosporidium.

Likely sources include dead animals and insects and faecal material from birds, possums, rodents and frogs.

Mr Abbott is also involved in another study of rural water supplies to determine microbial and arsenic content and the effect of poor water quality on health.

It's hoped the results will help develop strategies for improving water quality in rural areas.

Few disease outbreaks have been linked to roof-collected water but Mr Abbott says under reporting could be a factor.

"Most systems serve individual households



Stan Abbott

of only a few persons," he says.

"Therefore, residents experiencing sporadic gastrointestinal illnesses are less likely to seek medical attention unless the illnesses are severe or life-threatening."

Mr Abbott says some people might develop immunity but visitors who haven't drunk roof-runoff before are likely to be especially at risk from waterborne diseases.

Many schools relying on rain water failed compliance standards or were unmonitored, Health Ministry figures show.

Regular maintenance and a well designed system will help reduce risks, Mr Abbott says.

Water can be tested by a number of agencies for a fee, including the Rodney District Council. It checks mainly for the faecal bacteria escherichia coli (e.coli).

A 2001 survey found half the tanks tested had contamination.

Maintenance and design vital to health

Regular maintenance and good design features are recommended by Stan Abbott, a director of Massey University's new roof water research centre.

The centre will evaluate pathogen growth in water tanks and methods of protecting water supply quality.

Maintenance suggestions include:

- Keeping roof catchments clean and clear of moss, lichen, debris and leaves
- Cutting back all trees and branches that are overhang-

ing your roof

- Regular inspections and cleaning gutters
- Cleaning gutter and tank inlets and screens every three to four months
- Disinfecting supply if tank contamination is apparent
- Annual inspection of tanks and cleaning
- Periodic water testing. Water might need disinfecting, filtering or boiling depending on quality.

Roof water collections systems should include:

- A clean, impervious roof

made from non-toxic material

- No lead flashings or lead based paint
- A filter and first foul flush device intercepting water to the tank, and gutter guards or screens
- Wire or nylon mesh screens to cover all tank inlets
- Tank taps or draw-off pipes at least 100mm above the tank floor, or a floating arm draw-off valve
- A tank floor sloping towards the sump and washout pipe
- A well-covered manhole for easy access and inspection.