

Criminals may rue pot from this plot

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By NICK SMITH

Just like any other greenfingered cannabis grower, scientist Dion Sheppard fastidiously removes the male plants from his plot.

But while illegal growers cull the crop in order to boost the potency of their pot, Mr Sheppard's reasons are prosaic.



Dion Shepard with the cannabis he has grown as part of a study of plant and soil characteristics. Herald Picture / Paul Estcourt

The 24-year-old is completing his master's thesis exploring the question of "origin determination," in this case discovering whether cannabis plants grown in the same soil share the same elements.

Police may be able to use his discovery – that there are identifiable characteristics in cannabis cultivated in Northland soil compared with Blockhouse Bay soil – when prosecuting growers.

"For example, when two separate cannabis samples are recovered by the police, it may be possible to determine if they were originally grown in the same location," said Mr Sheppard. "This may lead to further charges for the offender."

Needless to say, the technician at the Institute of Environmental Science and Research's forensic science service centre laboratory is not an offender. Mr Sheppard has a licence to grow pot, cultivating a baker's dozen of mature females – enough to charge him with cultivation with intent to supply.

Like a criminal, he weeds out the male plants to replicate "a real-life situation" and also to produce more plant material, caused by the plant's failure to pollinate.

But Mr Sheppard's crop would have been a commercial failure. So as not to contaminate his research, he did not use fertiliser or lights for his indoor crop.

The result was spindly, thin plants, that nevertheless provided a harvest containing the THC component that causes users to get high.

After the plants reached maturity, he harvested, dried and subjected the material to a nitric acid test to produce a liquid for analysis.

This provided a list of elements such as magnesium, potassium and sodium which he used to determine the soil type.

While his research could not yet be used in a court of law, he said, similar origin determination studies had resulted in prosecutions in the United States.

For example, the prized Iowa potato possesses unique elements that allow authorities to prosecute sellers of bogus spuds.