STAFF REPORT

TO: Environment & Planning Sub-Committee

FROM: Lindsay Vaughan, Policy Planner

REFERENCE: B101

SUBJECT: **MANAGEMENT OF INVASIVE ANTS: AN UPDATE - REPORT EP05/06/04** – Report prepared for 1 June 2005 Meeting

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1. PURPOSE OF PAPER

The purpose of this paper is to update the committee on the experience gained during the treatment of invasive ants in Nelson City and the implications for Tasman District. It is a follow up to Report EP04/12/11 considered at the 15 December 2004 meeting.

2. TREATMENT OF ARGENTINE ANTS IN NELSON

Following the identification of Argentine ants at a property in Arapiki Road (Stoke) in September 2004, a preliminary survey by TDC Biosecurity staff and Landcare Research staff recorded an estimated 155 properties on steep hillsides adjoining Arapiki Road and Panorama Drive as being infested. A smaller outbreak was later identified in Waterhouse Street. Eventually, NCC agreed to a modest treatment programme. This involved funding a detailed survey, information to landowners, and securing bait for landowners to purchase and lay. Landowners were contacted, volunteers and team leaders were recruited, bait was ordered, flyers and signs were prepared, logistical support was arranged, media were briefed and Nelmac contractors were organised to treat NCC Reserves in the infested area. NCC and TDC Biosecurity staff worked as team leaders on both days and their input was critical in allowing the programme to be completed within this time frame.

The lessons arising from this experience include:

- To run a successful ant control campaign on private land with volunteers, a wide range of skills are needed, over and above the technical skills required to plan and undertake the work. These skills include public relations, information management and administration skills to facilitate ongoing liaison and co-ordination with landowners and volunteers. These can soak up a lot of staff resources.

- The importance of encouraging residents to accept responsibility for managing the problem.

3. TREATMENT OF DARWIN'S ANTS IN NELSON

Richard Toft (Landcare Research, Nelson) raised concerns about the potential impact of Darwin's ants with biosecurity staff in December 2004. They have been present in Richmond (Sutton Street / Warren Kelly Street block) and in Stoke in central Nayland Road, opposite Nayland Primary School; they have only recently moved across the road and into the school. Concern about the risk of rapid re-distribution in schoolbags throughout Stoke led to a small trial using Argentine ant bait, Xstinguish®, to assess its effectiveness on of Darwin's ants.

Two bait applications were planned, the first just prior to the commencement of school in January. Monitoring was undertaken at 40 sites, before, and one and three weeks after treatment. The treatment covered bark gardens, lawns, driveways, tracks, fences and a playground. Bait in the playground was laid on squares of cardboard and uplifted before school started. The results are shown in the following two graphs.

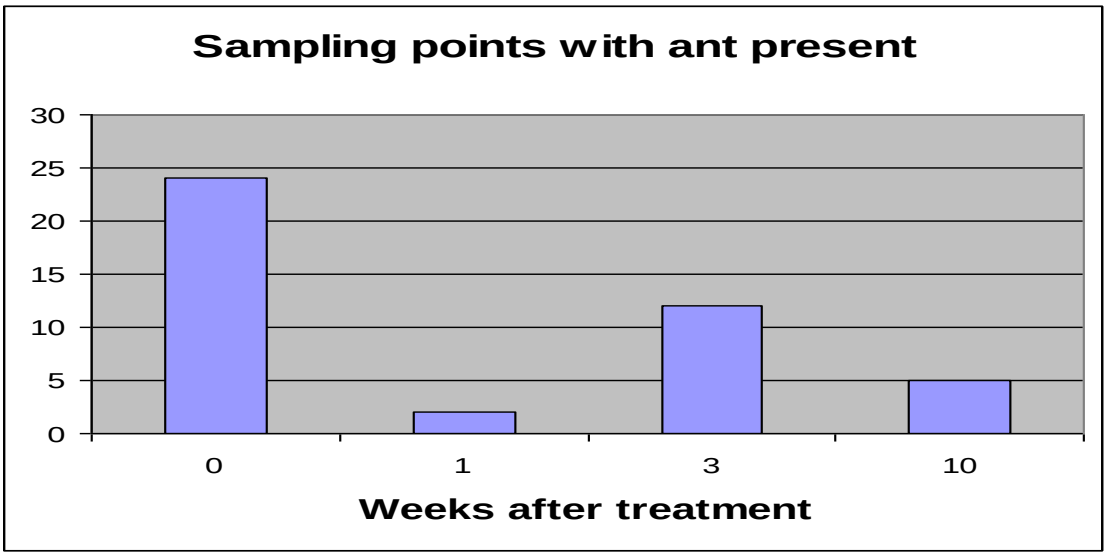

Figure 1: No. of sampling points with Darwin's ants present at Nayland School

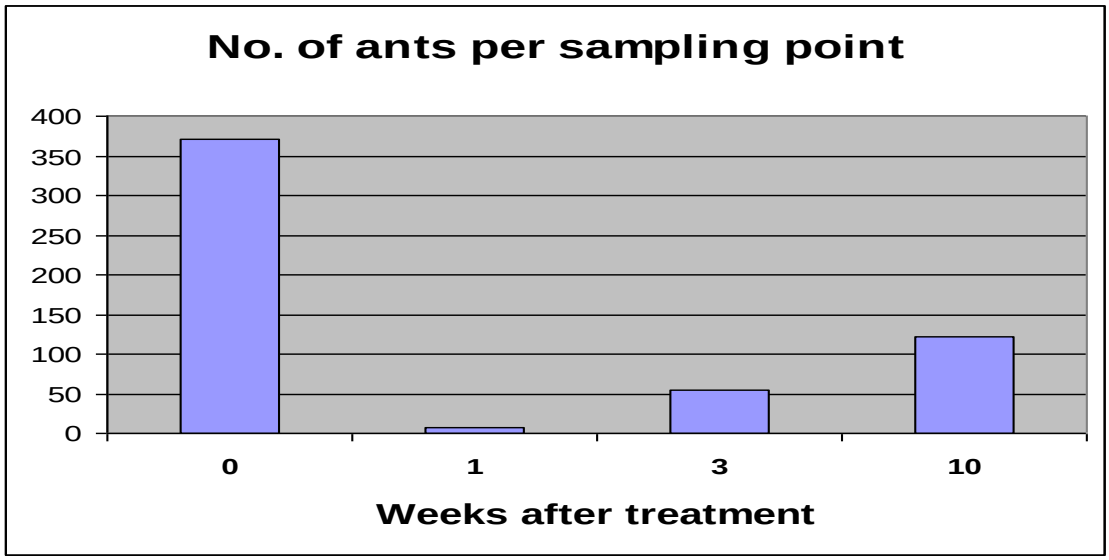

Figure 2: Number of ants per sampling point at Nayland School

The results indicate that the treatment was very effective (99.8% reduction in the total number of ants at each sampling point after one week). There has been a gradual increase in the number of ants collected at each sampling site and in the number of sites with ants, probably due to ants hatching from pupae (two - three weeks in summer) and from larvae (four - six weeks in summer); the cooler autumn weather may have been a factor in reducing the number of sites recording ants between weeks three and ten. A second treatment was undertaken in April to kill the remaining ants.

Local residents in Nayland Road who had been unsuccessfully dealing with high densities of ants on their properties were very interested in the results and asked for a chance to trial the bait. A survey undertaken by TDC Biosecurity staff indicated 23 properties were infested. A trial was proposed that involved residents purchasing the bait and laying it themselves, but was conditional on a high level of support. TDC biosecurity staff would provide information, a demonstration of baiting, reassurance during bait application and a loan of caulking guns.

A large majority of residents proceeded with the purchase of bait through TDC and the first treatment was applied in early April. Monitoring was undertaken on seven properties - four adjoining Nayland Road (all with high ant numbers) and three on the properties that back on to the Nayland Road sections (with lower ant numbers) .

The results were a little more variable, as can be seen in the following two graphs. Excellent results were achieved in the properties adjoining Nayland Road with higher ant numbers; the treatment was less effective in the properties with lower numbers of ants. While some of this may be due to the variation in the treatment undertaken by the residents, it is probable that larger numbers of ants will end up taking more bait to the nests, increasing the likelihood of having a lethal dose of toxin. Residents were asked to undertake follow up baiting in late April.

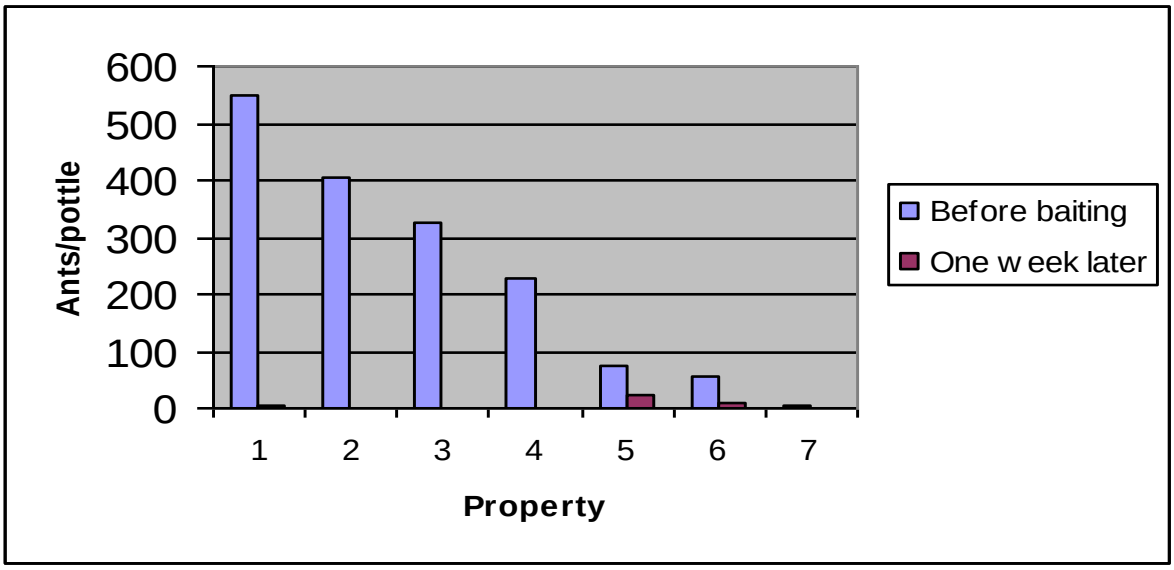

Figure 3: No. of sampling points with Darwin's ants present in Nayland Road

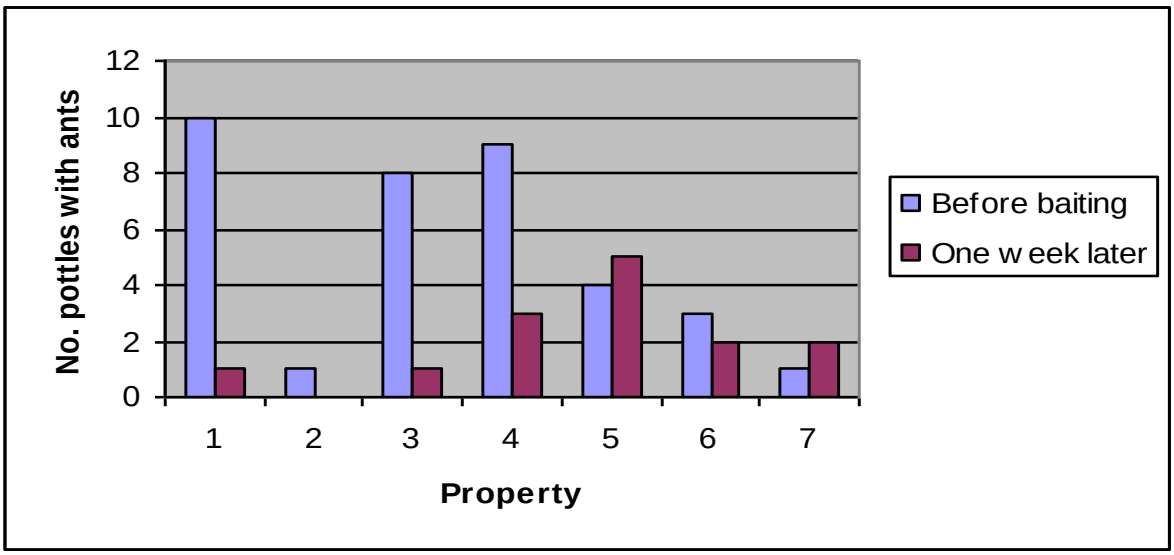

Figure 4: Number of ants per sampling point in Nayland Road

4. PROPOSED TREATMENT OF DARWIN'S ANTS IN RICHMOND

The results of the trials with Xstinguish® on Darwin's ants in Stoke indicate that it is achieving very good short-term results, bringing relief to a number of householders who were despairing at the lack of effective bait. As with Argentine ants, it is likely that these benefits will last for two - three years. The Council is now in a position to offer Richmond residents the opportunity to participate in a similar trial involving the coordinated treatment using the same bait. The same conditions will apply e.g. there needs to be a high level of agreement, as indicated by residents having paid for the bait in advance before the trail will proceed. There will be no direct cost to the Council but it will involve biosecurity staff time in surveying, liaising with landowners, demonstrating baiting methods, undertaking monitoring before and after baiting, and reporting on the results. A co-ordinated campaign will provide much more effective results than leaving it up to individual householders, reducing the risk of spreading ants throughout Tasman District. The treatment, if accepted, will be undertaken in early summer once soil temperatures have risen and ant activity is high.

5. ANT CONTROL WORKSHOP

An ant control workshop was arranged in Wellington on 29 April to bring together the many parties involved in ant control. This involved scientists from Landcare Research, researchers from Victoria and Auckland Universities, Biosecurity NZ staff, and those involved with planning and managing ant control operations from the Department of Conservation, regional councils and one territorial local authority. The programme provided for some science input at the beginning, an outline of bait development, presentations on baiting operations in the North and South Island and on one off-shore island, a discussion on the roles and responsibilities of different organisations, and some directions for the future.

A number of presentations will be put on to the Biosecurity NZ website, along with a copy of the proceedings. It provided an excellent opportunity for networking and to improve baiting techniques, and it registered the concern of many agencies and organisations with Biosecurity NZ. Workshop organisation was undertaken by a TDC staff member and Biosecurity NZ sponsored the workshop. This allowed it to be offered at no charge to participants and will provide them with a copy of the proceedings.

6. REGIONAL AFFAIRS COMMITTEE SUPPORT FOR ARGENTINE ANT CONTROL

Mayor Hurley tabled a paper on the Control of Argentine ants at the LGNZ Regional Affairs Committee Meeting on 22 April. The paper recommended that Biosecurity NZ take responsibility for national co-ordination of the Argentine ant control programme and provide adequate contingency funding for regional councils to undertake this work." This report was accepted.

7. RECOMMENDATION

That this report is received.

Lindsay Vaughan
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