BOTANIC GARDENS TRUST
PESTICIDE NOTIFICATION PLAN
AMENDED MAY 2009

1. INTRODUCTION

This Pesticide Notification Plan has been prepared in accordance with the *Pesticides Regulation 1995.*

The Botanic Gardens Trust (the Trust) has extensive plant collections of international and national significance and is committed to sustainable horticultural practices. The Trust's Statement of Environmental Commitment is shown as APPENDIX 1. The Trust's Towards Sustainable Horticulture Statement is shown as APPENDIX 2.

On the Trust Estates pest control is implemented using Integrated Pest Management principles. This is based on growing healthy plants in a healthy environment. This internationally accepted method encourages natural predators and plant health and vigour to control most pest and diseases. Chemicals may be used as part of this management practice. Their use is kept to the lowest practical levels using the lowest toxicity chemicals registered for the weed, pest or disease to be controlled when this is the most environmentally sustainable option.

The Trust has significantly reduced the use of chemicals and pesticides on its Estates since the year 2000. Most of the Trust lands now do not have pesticides used on them. On those occasions when pesticides are used, this mainly consists of applying insecticides to manage certain difficult insect pests, applying herbicides for weed control and spot use of fungicides. Such uses occur between 40 and 50 times per year. Other occasional pesticide use may consist of placing baits for rodent control.

If the Trust needs to apply pesticides, the public has generally always been notified of the use and the time necessary for their exclusion from these spaces. In the case of the Gardens at Mount Annan and Mount Tomah, this is via information available at the public entry gate for each Garden. In the Sydney Gardens where there are numerous entry points, notification has generally been localised to the areas to be treated.

2. PUBLIC PLACES COVERED BY THIS NOTIFICATION PLAN

The Trust uses or allows the use of pesticides in the following categories of outdoor public places that it owns or controls:

- Public gardens
- Parks
- Playgrounds
- Sporting fields
- Road verges and reserves
- Laneways and pathways
- Drains
- Non accessible forest/bushland areas
- Urban Roads

Additional to these publicly accessible areas are "back of house" locations such as the Trust's nurseries, glass houses and plant quarantine facilities. For the purpose of consistency it is deemed that these areas will be treated in a similar manner to the public access areas under this Plan.

3. WHO USES THESE PUBLIC PLACES AND HOW WILL NOTIFICATION OCCUR?

The Trust's estimate of the main regular user groups and level of use for each of the categories of public place is summarised for each Estate in the following tables.

Royal Botanic Gardens and Domain

	Regular user groups							Level of use			Notification via		
Public Place	**General public**	**Sports teams**	**Tourists**	**Families and Children**	**Event attendees**	**Contractors and/or Neighbours**	**Staff and Volunteers**	**High**	**Medium**	**Low**	**Site signage**	**Site delineation**	**Staff email**
Public gardens	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Parks	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Playgrounds	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Sporting fields	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Road verges and reserves	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
Laneways and pathways	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
Drains						✓	✓				✓		✓
Urban Roads	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
"Back of house"						✓	✓		✓		✓		✓

Mount Annan Botanic Garden

	Regular user groups							Level of use			Notification via		
Public Place	**General public**	**Sports teams**	**Tourists**	**Families and Children**	**Event attendees**	**Contractors and/or Neighbours**	**Staff and Volunteers**	**High**	**Medium**	**Low**	**Site signage**	**Site delineation**	**Staff Noticeboards**
Public gardens	✓		✓	✓	✓	✓	✓	✓			✓		✓
Playgrounds	✓			✓				✓			✓	✓	✓
Road verges and reserves	✓			✓	✓	✓	✓		✓				✓
Laneways and pathways	✓			✓	✓	✓	✓		✓				✓
Drains							✓			✓			✓
Non accessible forest/bushland						✓	✓			✓			✓
"Back of house"						✓	✓			✓	✓		✓

Mount Tomah Botanic Garden

	Regular user groups							Level of use			Notification Via		
Public Place	**General public**	**Sports teams**	**Tourists**	**Families and Children**	**Event attendees**	**Contractors and/or Neighbours**	**Staff and Volunteers**	**High**	**Medium**	**Low**	**Site signage**	**Site delineation**	**Staff email**
Public gardens	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓
Road verges and reserves	✓		✓	✓	✓	✓	✓		✓		✓		✓
Laneways and pathways	✓		✓			✓	✓		✓		✓		✓
Drains						✓	✓			✓	✓		✓
Non accessible forest/bushland						✓	✓			✓			✓
"Back of house"						✓	✓			✓	✓		✓

Whenever a pesticide is applied by the Trust and its contractors on its lands, the Trust will provide notice by a variety of methods:

- For the Sydney Gardens, signs will be erected in relevant locations prior to the application of the pesticide, advising visitors of the chemical used and any subsequent exclusion/re-entry period.
- At Mount Annan and Mount Tomah Botanic Gardens, information will be available at the entry point and signs will be placed prior to the application of the pesticide advising visitors of the chemical used and the subsequent exclusion/re-entry period.
- Site delineation via fencing and/or placement of witches hats to advise/deny access will be used to restrict access to the site whilst the application is in progress and during any exclusion/re-entry period for pesticide uses.
- For broad acre applications in non-public use areas at Mount Annan Botanic Garden, informational signage will be erected at the nearest access point.
- Emails will be sent to all staff at the respective Garden prior to the application to advise of the timing, chemical used, exclusion/re-entry period for their own protection and for dissemination of this information in response to any queries raised by user groups.
- For the Sydney Estate, the adjoining neighbours will be notified for each spray application. Due to the size of the Estate, tree distinct localities have been identified for notification
    - When spraying is in the Domain the following neighbours are notified
        - Pavilion on the Park Restaurant and Cafe
        - Art Gallery of New South Wales and
        - Andrew Boy Charlton Pool
        - Shop on the Hop (Mrs Macquaries Point)

    - When spraying in the Royal Botanic Gardens, south of the Macquarie Wall
        - Botanic Gardens Restaurant and Café
        - Trackless Train Operator
        - Conservatorium of Music
        - Conservatorium High School

    - When spraying in the Royal Botanic Gardens, north of the Macquarie Wall
        - Botanic Gardens Restaurant and Café
        - Trackless Train Operator
        - Conservatorium of Music
        - Conservatorium High School
        - Government House
        - Sydney Opera House

The Trust uses small quantities of some pesticides that are widely available in retail outlets and ordinarily used for domestic purposes (including home gardening).
The Trust does not intend to provide notice for such pesticide applications other than by way of description in this plan or general information provided on the website. This will apply to minor control of indoor and outdoor insect pests using baits or aerosol spray cans and spot weed control using a wick wipe wand or hand bottle.

These notification arrangements are based on Trust's assessment that:

- The notice provided should reflect the level of use of a public place, the extent to which the public may directly encounter a pesticide use and the type of pesticide use.
- Signs are the most effective way to advise people of chemical usage when used in the appropriate location. Signs will carry both text and use of internationally accredited pictograms to advise that the area is a no entry zone. Generally low toxicity chemicals are used and visitors are excluded from the area for withholding period as per label instructions.
- Education (via email) of other staff who are working on the site is used to supply information that assists in the education process of user groups.
- Information dissemination to adjoining land owners will educate their visitors of the activities.
- Denial of physical access to the site (where practical) where the pesticide is being applied is the only method to exclude the users groups from the site or alternatively the placement of specially marked 'witches hats' to delineate the area to be treated, supported with appropriately worded/symbolised exclusion notices.

Except as may otherwise be specified in this plan, the Trust will provide notice to the community concerning all pesticide applications in these public places.

Similar notification arrangements will apply to pesticide use by Botanic Gardens Trust staff whilst working on the Art Gallery of New South Wales, Australian Museum and Sydney Opera House properties.

All three Gardens have their own unique characteristics (It is for this reason that public place categories are listed as having high visitation rates although this can vary depending on weather, time and actual location). Notification arrangements take this into consideration without compromising the health and safety of user groups or staff.

In particular, this affects the access points at which user groups could be advised of any pesticide applications. At Mount Annan and Mount Tomah, with only one public access point this is relatively simple via the erection of a sign. A notice can also be provided at the entry booth where Garden entrance fees are paid. In the Sydney Gardens there are numerous entry points, so the most effective notification will be via the use of signs near the location of the pesticide application.

A full inventory of pesticides used under this Plan, the purpose of their use and the location of use is shown as APPENDIX 3.

4. WHAT INFORMATION WILL BE PROVIDED?

All forms of notification proposed for the Trust's lands outlined in this Plan will contain the following information:

- The full name of the pesticide used as it is listed on the pesticide label;
- The purpose of the application, including the pest that is being treated;
- Date(s) that the pesticide was applied (or in the case of prior notification, the date on which the pesticide will be applied);
- Product specific warnings on the subsequent use of the land/exclusion period;
- Contact details for The Trust and/or the pesticide operator.

A typical example of the type of notification format is shown as APPENDIX 4.

5. HOW THE COMMUNITY WILL BE INFORMED OF THIS PLAN

The Trust will consult with the community on the Pesticide Notification Plan, including the types of public places covered and the proposed notification methods.

The original Pesticide Notification Plan was placed on public display for four weeks at The Trust offices and a notice published in the Sydney Morning Herald and local print media for Mount Annan and Mount Tomah advising that the Plan is available for public comment. No comments were received from this exhibition period and the Plan was subsequently adopted for implementation.

A copy of the Pesticide Notification Plan will also be available on the Trust's website.

Such is the dynamic nature of the agricultural chemical industry with new, lower toxicity chemicals regularly being released by the industry, it is considered that there will be times when APPENDIX 3 (Inventory of Pesticides Used) will need to be amended/updated. If the amendment reflects use of chemicals for their regulatory purpose then no further advertising of this Plan will be conducted by the Trust. If during the revisions there are significant variations made to the adopted Plan then the Trust will recommence the public exhibition and notification process conducted when this Plan was first adopted. .

6. FUTURE REVIEWS OF THIS PLAN

As a minimum the Pesticide Notification Plan will be reviewed every five years due to changes in industry standards and horticultural practises. The review will include:

- Reasons for the review of the Plan
- A summary of the implementation of the Pesticide Notification Plan since the last review and
- Recommendation for amendments (if applicable) to the Plan.

7. RELATED LEGISLATION

- Pesticides Act 1999 (as amended)
- Pesticides Regulation 1995 (as amended)
- Occupational Health and Safety Act 2000
- Occupational Health and Safety Regulation 2001
- Protection of the Environment Operations Amendment Act 2005
- Protection of the Environment Operations (General) Regulation 1998
- Native Vegetation Conservation Act 1998
- Royal Botanic Gardens and Domain Trust Act 1980

8. CONTACT DETAILS

Anyone wishing to contact The Trust to make comment on the Pesticide Notification Plan or to obtain details of specific details of pesticide applications in public places should contact:

Director
Domain and Royal Botanic Gardens
Botanic Gardens Trust
Mrs Macquaries Rd
Sydney 2000
Phone 02 9231 8111
Facsimile 02 9251 4403
Email Feedback@rbgsyd.nsw.gov.au

Assistant Director
Mount Annan Botanic Garden
Mount Annan Drive
Mount Annan 2567
Phone 02 4634 7901
Facsimile 02 4648 2465
Email Feedback@rbgsyd.nsw.gov.au

Assistant Director
Mount Tomah Botanic Garden
Bells Line of Road
Via Bilpin 2758
Phone 02 4567 3013
Facsimile 02 4567 2037
Email Feedback@rbgsyd.nsw.gov.au

APPENDIX 1

Botanic Gardens Trust

Statement of Environmental Commitment

The Royal Botanic Gardens and Domain Trust is committed to environmental responsibility in all our operations, partnerships and programs. This Trust statement elucidates our commitment to act in ways that protect the environment.

The mission of the Royal Botanic Gardens Sydney is to inspire the appreciation and conservation of plants.

The Trust supports the principles of Ecological Sustainable Development (ESD), i.e.
- To meet the needs of the present without compromising the ability of future generations to meet their own needs.
- To protect biological diversity and maintain essential ecological processes and life-support systems.
- To integrate both long and short-term economic, environmental, social and equity considerations.

The Trust is committed to achieving best practice in environmental management by:

- Protecting and enhancing the natural and heritage elements of our sites.
- Ensuring our site management does not degrade the quality of water leaving our gardens.
- Conserving water and implementing recycling wherever practicable.
- Minimising consumption of resources, encouraging recycling, purchasing recycled content products and minimising waste.
- Remediation of any legacy of past practices to ensure the Trust lands and assets are in a sustainable condition.
- Managing known and potential weeds and pathogens, and preventing their spread beyond our site.
- Practising efficient energy use, incorporating the most energy efficient facilities and sustainable forms of energy where practical.
- Managing fauna and flora to enhance biodiversity and visitor enjoyment.
- Practising environmentally sound pest management, including Integrated Pest Management (IPM).
- Incorporating sustainable values and ensuring that all developments and ongoing operations are in keeping with the principles of Ecologically Sustainable Development (ESD).
- Applying our environmental criteria across all Trust operations including contracts and professional consultancy.
- Ensuring that all events staged on Trust lands operate in an environmentally responsible manner, including minimising waste, encouraging recycling and promoting use of recycled products.
- Ensuring that all staff, associates, students, volunteers and contractors are aware of our Statement of Environmental Commitment, and comply with relevant environmental legislation, government regulations, policies and agreements.
- Promoting our environmental initiatives so as to raise public understanding about best environmental responses and how to minimise environmental impacts.

This policy applies to all sites administered by Royal Botanic Gardens and Domain Trust, to all Trust staff, licensees and contractors.

APPENDIX 2

Botanic Gardens Trust
TOWARDS SUSTAINABLE HORTICULTURE

Updated 10 August 2005

The mission of the Royal Botanic Gardens and Domain Trust is *'To inspire the appreciation and conservation of plants'*.

We achieve this mission through research, horticulture, education, conservation and recreation.

In our practice of horticulture we present curated and interpreted collections of plants at our four sites; the Sydney Gardens, the Sydney Domain, Mount Tomah Botanic Garden and Mount Annan Botanic Garden.

We seek to '*inspire the appreciation of plants'* not only through the horticultural presentation of our plant collection, but also by demonstrating environmental leadership in horticulture and land management.

Sustainable and Organic Horticulture

The Trust has set an objective of moving towards a more sustainable approach to our horticulture. Definitions of *sustainable* and *organic* are many and varied and we need to settle on a definition appropriate to a contemporary botanic garden.

The Trust has adopted the following aims which are also central to the definitions used by established organic groups (See appendix for definitions promoted by organic groups):

- **Minimum chemical input**
- **Integrated pest management**
- **Ensuring soil is enriched, for example through enhanced biological activity, and that it is not degraded by growing plants**
- **Use of more natural fertilisers.**

Botanic gardens differ from organic farms and organic domestic horticulture in several ways. They present long-lasting plant collections on specific and defined themes, and they do not mass-produce plants or food.

One of the hallmarks of a respected contemporary botanic garden is a high standard of horticultural presentation, including plants with minimal pest and disease damage, few weeds, optimum plant vigour and extensive, and relatively weed-free, lawn areas.

At each of our four sites we grow a large diversity of plants, many of which are outside their best climate and growing conditions, and as such, require specific nurturing for optimal presentation. While adopting sustainable horticultural practices, we are also committed to retaining our position as a leading international botanic garden presenting a diversity of plants to a high horticultural standard.

Taking this into account, we have adopted a fusion of the best and most practical organic and sustainable principles, combined with modern horticulture and science.

We have also adopted the principles of ecologically sustainable development outlined in the New South Wales Biodiversity Strategy. Thus we seek "to enhance individual and community wellbeing and welfare by following a path of economic development that safeguards the welfare of future generations; to provide for equity within and between generations; and to protect biological diversity and maintain essential ecological processes and large support systems".

The Trust has set the following outcomes for sustainable horticulture:

1. We have a clearly articulated Sustainable Horticulture Strategy to promote our policies, strategies and initiatives to internal and external stakeholders.

2. We grow plants that are naturally less susceptible to pests and diseases in Sydney's climate;

3. We manage pest and disease outbreaks using sustainable means, including integrated pest management.

4. We train all horticultural staff in sustainable horticulture and environmental management.

5. We actively interpret our environmental principles and actions to visitors.

6. Water leaving our sites is not degraded by our horticultural activities.

7. We do not contribute to toxic residues in the soil and we ameliorate any build-up from past horticultural practices.

8. We maintain and improve horticultural presentation standards.

9. We process and re-use excess vegetation (eg prunings, grass clippings, branches) on site. This material is treated as a resource not as waste.

10. We manage environmental weeds so they do not spread beyond our Gardens.

11. We procure horticultural landscape materials on the basis of their whole-of-life environmental impacts.

12. To ensure transparency and accountability, there are regular, independent audits of sustainable horticultural practices and environmental management.

APPENDIX 3

Inventory of Pesticides Used

Herbicides	Location	Purpose
Spearhead	RBG&D	Broadleaf weeds in lawns
Fusilade	RBG&D, MABG, MTBG	Grasses in garden beds
Hoegrass 500	RBG&D	Ryegrass and Wild Oats in lawns
Glysophate Clear Bio	RBG&D, MABG	Weeds – non selective
Glyphosate painting	RBG&D, MABG	Woody weeds – non selective
Klin-Up Bio Aquatic	MTBG	Weeds – non selective
DSMA Clear	RBG&D	Paspalum and Summer Grass in couch lawns
Barmac Trinoc	RBG&D	Broadleaf and grass weeds in couch lawns
Ronstar G	RBG&D	Pre emergent weed control for lawns and ornamentals
Sempra	RBG&D	Nutgrass in lawns and garden beds
Dimension	MTBG	Summer Grass in lawns
Daconate	RBG&D	Grasses in couch lawns
Destiny	RBG&D	Broadleaf weeds and grasses in lawns
Royale Selective 500SC	RBG&D	Broadleaf weeds and grasses in lawns
Bromocide 200	RBG&D	Weeds in lawns
Finale	RBG&D	Weeds – non selective
Razor	RBG&D	Weeds - non selective
Drive	RBG&D	Summer Grass and Clover in lawns, suppression of kikuyu grass
Sertin	RBG&D	Grasses - non selective
Rhino	RBG&D	Crows Foot Grass in lawns
Sierraron	MABG	Pre emergent olive and weed seed
Garlon	MABG	Mature olive basal bark application
Sportsground	MABG	Selective broad leaf weed control in lawns
Monument	MABG	Kikuyu control in couch lawns
Starane	MABG, RBG&D	St Johns Wort, bulbous weeds
Brushoff	MABG	Blackberry and olive seedlings
Kamba M	MTBG	Selective broad leaf weeds control in lawns
Taskforce	MABG	Chilean Needle Grass control in MABG grasslands

Fungicides	Location	Purpose
Baycor Turf	RBG&D	Fungal diseases in lawns
Chipco Rovral Green	RBG&D	Fungal diseases in lawns and ornamentals
Foli-R-Fos	RBG&D, MABG, MTBG	Fungal diseases in ornamentals
Copper Sulphate	RBG&D	Fungal diseases in ornamentals
Yates Anti-Rot Phosacid Systemic	RBG&D	Phytophthora and collar rot in ornamentals
Dominator 600	RBG&D	Phytophthora and downy mildew
Eco Carb Organic	MABG	Fungal diseases on nursery stock
Lime Sulphur	RBG&D	Fungus, insect and mites
Aliette	RBG&D	Phytophthora and pythium in nursery quarantine and soil drench
Proplant	MABG	Fungal diseases in nursery stock

Insecticides	Location	Purpose
Merit Turf	RBG&D, MTBG	Insects in lawns and ornamentals
Confidor 200SC	RBG&D	Various insects in ornamentals and vegetables
Confidor C5	MABG, MTBG	Fig Leaf Beetle
Mavrik	RBG&D	Chewing and sucking insects in ornamentals
Bio Neem	RBG&D	Various insects in ornamentals and vegetables
Multiguard Slug and Snail Killer	RBG&D	Slugs and snails in ornamentals
Barmac Killmaster	RBG&D	Cockroaches, spiders, silverfish and ants
Success	RBG&D	Caterpillars on fruit and vegetables
Dipel DF (Biological)	RBG&D, MABG, MTBG	Caterpillars on ornamentals, fruits and vegetables
Azamax	D&RBG, MABG	Mites, aphids and whitefly
Initiator	MABG	Arboretum trees
Mallet	MTBG	Black Beetle
Slay-Afe	MABG	Ornamentals
Pyrethrum	RBG&D	Beetles, insects
Pest Oils (e.g. DC Tron, Healthy Earth, Eco Oil, Clear White Oil etc)	RBG&D, MABG, MTBG	Mites, aphids, scale, general insect control
Clensil	RBG&D	Mites, aphids and thrips in nursery stock
Brigade	RBG&D	Army worm in lawns

Wetting Agents	Location	Purpose
Barmac Maxwet	RBG&D	Wetting agent
Spraymate Activator Surfectant	RBG&D	Wetting agent
Spreadwet 100	MABG, MTBG	Wetting agent
Agral	MTBG	Spray adjuvant
Pulse	MTBG	Penetrant, assists uptake
Synertrol	RBG&D	Assists uptake of other chemicals
Endorse	RBG&D	Assists uptake of other chemicals

Dyes	Location	Purpose
Red liquid marking	RBG&D, MTBG	Marker/indicator dye
Blue liquid marking	RBG&D	Marker/indicator dye

Miscellaneous	Location	Purpose
Syngenta Primo MAXX	RBG&D	Turf growth regulator
Barmac Auxinone	RBG&D, MABG	Root hormone and stimulant

Location Legend
RBG&D – Royal Botanic Gardens and Domain, Sydney
MABG – Mount Annan Botanic Gardens
MTBG – Mount Tomah Botanic Gardens

APPENDIX 4

Typical form of notification for pesticide usage.

Botanic Gardens Trust
SYDNEY

Science Education
CONSERVATION
Horticulture Recreation

NOTIFICATION OF PESTICIDE APPLICATION

Date of Application – .....

Location – .....

Chemical to be Used – .....

Active Constituent – .....

Purpose for the Application – .....

Estimated Start Time – .....

Estimated Finish Time – .....

Exclusion Period for No Entry – .....

Method of Application – .....

Contact Officer - .....

Revision	Date	Revision Description	By	Check	Approved
Draft	07/09/2006	Final Draft of initial Plan	Manager Domain and Infrastructure	BGT Supervisors	
1	12/01/2007	Adopted Plan	Manager Domain and Infrastructure	Director D&RBG	RBG&D Trust
2	15/04/2009	Updated pesticide inventory and minor amendments to notification process	Manager Domain and Infrastructure	BGT Supervisors	
2	15/04/2009	Final review and endorsement	Manager Domain and Infrastructure	Director Domain and RBG	Director Domain and RBG