Management of Brown Root Rot Disease Infected Tree

1. Introduction (簡介)

Brown Root Rot Disease (BRRD) is caused by the aggressive fungal pathogen, *Phellinus noxius*, (a white rot fungus) that can lead to swift deterioration in tree health and may result in tree collapse.

褐根病是被有害木屑子菌 (*Phellinus noxius*), 一種白腐真菌所引致。這是一種感染性很強的病原菌，可迅速損害樹木的健康，更可能令樹木倒塌。

BRRD can be transmitted through root contact, contaminated soil, ground water, surface water, and even through the air.

褐根病可經由根部接觸、受污染的泥土、地面及地下水，甚至通過空氣傳播。

It is an international disease prevalent in tropical and subtropical regions with no effective cure. There have been numerous claims of cures or effective management, but it is widely accepted that once a tree is infected, it cannot be cured.

褐根病是一種世界性的病害，常見於熱帶及亞熱帶地區，現時沒有有效的根治方法。曾有不少人聲稱有方法根治或有效管理褐根病，但廣泛認為樹木一旦感染，該病便無法根治。

2. Objective (目的)

BRRD has devastating impact on our landscape, so its transmission should be contained as far as practicable. Once a site is infected, it must be completely disinfected. This Practice Note serves to brief on the removal of BRRD infected trees and site disinfection so as to prevent further spread of the disease.

褐根病對我們的園景造成破壞性的影響，因此應盡可能控制病菌傳播。被感染的地方一經感染，便必須徹底消毒。本作業備考旨在簡介除受褐根病感染的樹木及現場消毒以遏止病菌蔓延。

3. Symptoms and Signs of BRRD Infected Trees

(Symptoms 症狀)

- **Sparse foliage density** 葉片稀疏

(Signs 病徵)

- **Soil aggregates** 泥粒
- **Mycelial nets** 菌絲網紋
- **Fungal fruiting bodies** 真菌子實體
- **Mycelial crust** 菌絲面
- **Dieback twigs** 枝端枯死
- **Reduced leaf size** 葉片變小
- **Chlorotic foliage** 華黃葉片
- **Abnormal** 不正常
- **Normal** 正常
4. Removal of BRRD Infected Trees
(移除感染褐根病樹木)

(i) Engagement of qualified personnel (聘請合資格人士)
Engage qualified personnel with arboricultural knowledge and understanding of the disease and occupational safety and health to carry out and supervise tree removal works.

(ii) Tree removal procedures (移除樹木程序)

- Take measures to prevent accidental dissemination of contaminated soil/infected tissues to the surrounding environment during operation.

- Remove vegetation (e.g. shrubs, perennials or herbs) within the infected area.

- Remove the tree branches and trunk.

- Keep all removed tree parts and vegetation within the delineated works area.

- Apply disinfectant (e.g. 70% ethanol, 1:49 bleach solution, fungicides and soil fumigants, etc.) to the removed tree parts and vegetation thoroughly.

- Remove tree stump and roots that are larger than 1cm in diameter within the infected area.

- Apply disinfectant to the removed stump and roots thoroughly.

- Excavate and remove all soil to a depth of 1m within the infected area.

- Pack the removed materials, including removed tree parts and vegetation into durable and disposable bags, and then upload them onto a designated vehicle.

- Cover the materials properly to avoid accidental spread of the materials during transportation.

- Remove the tree branches and trunk 移除樹枝及樹幹

- Remove tree stump, roots and soil 移除樹樁、根及土壤

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- Apply disinfectant and pack the removed materials 施放消毒劑及封存移除的物料

- Upload the bags onto a designated vehicle 將封存的物料放上指定車輛

5. Enquiry and Feedback (查詢和反映意見)
Any enquiry and feedback should be directed to the Greening, Landscape and Tree Management Section of Development Bureau. (E-mail Address: gittms@devb.gov.hk).

如有查詢及意見，請與發展局綠化、園境及樹木管理組聯繫（電郵地址：gittms@devb.gov.hk）。

6. Reference (參考資料)


發展局《樹木管理手冊》