

## “KEEPING JACARANDA TREES HEALTHY”

*Prepared by: Vuledzani Muthelo (MSc student working on project entitled: “Structure of the Mitochondrial genome of Ganoderma species”).*

Pretoria is known as the “Jakaranda stad” (City of Jacarandas) due to the thousands of Jacaranda trees that are planted next to streets, in gardens and parks. They flower in October, painting Pretoria in all shades of purple. Many of the Jacarandas, however, are infected with a fungus that causes root rot that leads to wilting and eventually to the death of the trees.



The fungus causing disease on the Jacaranda trees is suspected to belong to one or more of the species in the genus *Ganoderma*. These fungi survive either as pathogens or saprophytes, are distributed world-wide and infect many different hosts. In South Africa two species were identified in the past, *G. applanatum* and *G. lucidum*. It is thus possible that one of these species, or a yet undescribed species, is causing Ganoderma root rot on the Jacaranda trees in Pretoria.



### Vuledzani investigating *Ganoderma* at a Jacaranda tree in Pretoria

Vuledzani Muthelo obtained her BSc and honours degrees from the University of Venda. She then started her MSc degree at the University of Pretoria in 2006 under the supervision of Dr Martin Coetzee. For her dissertation she is working on genetic and taxonomic aspects of *Ganoderma* species in South Africa. Her research also includes investigating the identity of the *Ganoderma* species causing diseases on Jacaranda trees in Pretoria.



Preliminary results from Ms Muthelo's investigation indicate that *G. lucidum* is causing root rot disease on the Jacaranda trees. This fungus is known to be a pathogen on many tree species in the tropical and temperate regions of the world, including Africa. Some genetic variation was observed among the isolates collected from the different collection sites in Brooklyn and this will now be further investigated.