



Media Release

**For Immediate Release**

**To: All Media**

**Date: 5 June 2020**

**Attention: News Editors / Agricultural writers / African Invertebrates**

## **ARC's Environmental Day Awareness**

### **The impact of Invasive Alien Plants in South Africa, with special reference to Environment**

The ARC-Plant Health and Protection undertakes a number of projects on the biological control of invasive alien plants (IAPs) in South Africa, funded by the Department of Forestry, Fisheries and Environment: Natural Resources Management Programme. Over the past 300 years or so, the intentional and accidental introduction of more than 400 alien, or non-native plant species, has gradually resulted in an infestation covering over 80 000 km<sup>2</sup> of the South African land mass as well as fresh water bodies. IAPs have invaded water catchment systems, watercourses and wetlands and are the biggest long-term threat to the water security in South Africa. They have invaded agricultural lands, especially encroaching marginal lands used for stock grazing, consequently reducing the stock carrying capacity.

Perhaps of more importance, is the fact that IAPs pose a huge threat to our indigenous environment by out-competing native species, transforming and destroying delicate ecosystems beyond recovery.

South Africa is the third most species-rich country in the world and IAPs are the single biggest threat to its rich environment. The great majority of IAPs are invaders of natural and semi-natural habitats, which pose a direct threat to our unique environment. These IAPs threaten the existence of native species through competition and displacement, hybridization and the alteration of water, nutrient and fire regimes. For example, invasive Australian Acacias and Hakeas have invaded large areas of the unique Cape Floral Kingdom and pose a devastating threat to the last remaining areas of specific Fynbos ecotypes in the Western Cape. These invasive Australian tree species also enrich the soils with nitrogen, to the detriment of the local fynbos and Protea species that only thrive in poor quality soil conditions. These IAPs also increase the fuel load and contain high concentrations of resins that readily burn in wildfires at such a high intensity that kills the local fynbos vegetation. Once the fires have swept through, the denuded hillsides then rapidly erode away during the next rains and the native soils destroyed forever.

A large number of species of invasive floating and submerged water weeds have invaded our dams and riverine systems, causing havoc to the aquatic ecosystem function and biodiversity. These IAPs cause increased water losses through excessive evapotranspiration and completely change the nutrient recycling regime in the ecosystem. Numerous other IAPs clog rivers and stream banks, causing increased siltation and the collapse of the natural water flow, leading to excessive flooding event following rains. Examples of IAPs invading the grassland biome, encompassing stock grazing farms and even pristine grassland, include pompom weed, *Campuloclinium macrocephalum*. Infestations of

this weed can reach huge densities, outcompeting the local grassland vegetation, causing drastic reductions of the grazing carrying capacity. Pompom is also allelopathic, emitting biochemicals, which inhibit the growth of other plants in its vicinity. Numerous invasive woody shrubs, such as *Lantana camara* and *Chromolaena odorata*, have invaded our coastal and inland bush vegetation over vast areas resulting in IAP deserts where local biodiversity is simply smothered and outcompeted. Invasive vines and climbers have invaded what little remains of our indigenous forests and woodlands, again smothering the local tress and reducing their chances of regeneration.

The infestations of many IAPs continue to spread and increase in density, which only intensifies our battle against the impacts of IAPs on our unique environment in South Africa. Climate change is also likely to intensify the negative impacts of IAPs on native biodiversity. Further investment and research in the biological control of IAPs can provide some hope for the development of cost-effective and environmentally sustainable management strategies to mitigate the threat to our environment caused by IAPs.

*Ends*

***Issued by:***

ARC Marketing and Communications

***For further information, please contact:***

***Technical inquiries***

Dr Roger Price (ARC)

Research Team Manager

Cell: 082 465 2666

PriceR@arc.agric.za

***Media inquiries***

Ms. Hendrieta Moletsane

Public Relations Officer at ARC-Plant Health and Protection

Cell: 065 927 0908

E-mail: [Moletsaneh@arc.agric.za](mailto:Moletsaneh@arc.agric.za)

***Notes to the Editors***

**About the Agricultural Research Council**

The Agricultural Research Council is a premier science institution that conducts research with partners, develops human capital and fosters innovation in support of the agricultural sector. The ARC provides diagnostic, laboratory, analytical, agricultural engineering services, post-harvest technology development, agrochemical evaluation, consultation and advisory services, food processing technology services as well as various surveys and training interventions. For more information visit the ARC website at: [www.arc.agric.za](http://www.arc.agric.za)