



Media Release

For Immediate Release

To: All Media

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Attention: News Editors / Agricultural writers

The Agricultural Research Council conducts a research program to cultivate hemp for medicinal purpose.

Pretoria: The Agricultural Research Council - Industrial Crops campus (ARC-IC) has started with the research programme that will focus on optimizing the cultivation of hemp for medicinal purpose, and this is due to the presence of cannabinoids in the hemp plant. The research is conducted in order to determine key factors to optimize the cultivation of local pharmaceutical grade active ingredients. The research will develop models, standard operating procedures and development of training manuals towards achieving good agricultural practices (GAP) in the cultivation of hemp for medicinal purpose.

Cannabis sativa L. is an annual crop mainly grown for industrial use and is one of the oldest plant to be grown for food, oil, textile fibre and medicinal purposes. Hemp and dagga (marijuana) belong to the Cannabaceae family. Although, similar in appearance, the dagga plant may develop more side branches and has a more bushy appearance in contrast with hemp. Further, dagga varieties, popularly known as marijuana contains about 5 – 20% of delta-9-tetrahydrocannabinol (THC), an active ingredient with psychoactive effects. Whereas hemp has a significantly lower concentrations of THC (less than 1%) and higher concentrations of cannabidiol (CBD), with minimal psychoactive effects of THC. Hemp also tends to be more fibrous and contains higher levels of oil. Because hemp contains very low THC, it is not suitable for use as a recreational drug.

There is a wide range of uses for hemp. Industrial hemp is used to make over 25 000 consumer products from hemp apparel and accessories to house-wares and hemp seed oil cosmetics.

Some of the products made from hemp are: clothing, shoes, diapers, rope, canvas, cellophane, paints, fuels, chain lubricants, biodegradable plastics, paper, fibreboard, cement blocks, food, cosmetics, and soap. Currently three main groups of hemp varieties are under cultivation, namely, varieties cultivated primarily for fibre, varieties grown for seed and varieties grown for their medicinal and narcotic properties. Medicine based on cannabinoids is used to manage symptoms of various debilitating conditions.

To date it has been illegal to handle or cultivate hemp in South Africa it is classified under *Cannabis* species. Typically there has been a requirement for a permit, obtainable from the Department of Health under the Medicines Control Council for cultivation, transport and use of hemp. However, the recent Constitutional Court ruling could significantly alter the regulatory requirements for handling hemp.

In order to conduct research and development, the ARC-IC was issued with permits by the Department of Health as early as 1994 to allow for legal handling, possession, cultivating and harvesting of hemp. Research work on hemp has been going on for more than 20 years and this resulted in the successful development of two hemp fibre varieties suited to the South African growing conditions. These two varieties are in the process of being registered/listed with the Department of Agriculture and Fisheries. Hemp production research on agronomics, harvesting and processing has also been done. A production guide was developed and it is available at ARC-IC campus. From the research conducted, the results showed that hemp fibre production can be cultivated successfully in KwaZulu Natal, Eastern Cape and Western Cape provinces of South Africa. The main reason for this confined production is due to long photoperiod (± 14 hours) requirements of hemp.

In South Africa, not enough hemp is produced for the local market due to legislative barriers that restrict the amount of hemp to be produced. There is an existing market in South for imported hemp products, mainly hemp textiles and fibre. Several hemp products, such as clothing, soaps and shampoo are manufactured in SA from imported raw materials. There is also potential demand in some other segments on the local market, such as hemp-based composite materials and medicine use.

The Constitutional Court ruling opens up a wide variety of possibilities for the ARC to develop new products and uses for hemp; which in turn, would be a good stimulus for enterprise development and job creation.

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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