

The merits of cotton for crop rotation

By Charné van der Merwe

Do not underestimate the value cotton has for your welfare and wellbeing. After all, it is the raw material from which many of the jackets, shirts, denims and dresses we wear are made!

Kevin Reid, one of GWK's faithful and long-time cotton producers, has been planting cotton at Luckhoff in the Free State for so long, he makes it look easy.

Reid has been planting cotton for the past 26 years. However, like other cotton producers he has cultivated very little cotton since 2009/10 and has focused on other crops such as wheat, maize and lucerne instead. Owing to poor prices and an unfavourable exchange rate, the cotton industry in South Africa has experienced a severe slump and has become economically unsustainable. That said, things are looking up nowadays.

"The harvest is exceptionally good and above average this year," says Reid who, in addition to owning his own land, rents another farm in the area. Reid explains that it is important to rotate crops, which is why he plants a different crop every two years.

Cultivation climate

Cotton is known as a soft staple fibre that grows in a boll or protective capsule around the seed of the cotton plant. Cotton cultivation requires enough rain until the pods begin to open, followed by drought.

"It is difficult to find the perfect climate for cotton, but we are privileged to be in an area with abundant sunlight. After all, the Northern Cape and the Free State are known for their excellent climates for cotton cultivation. The hotter the sun, the whiter and stronger the fibres produced by the plant," he explains.

Reid believes that cotton is a crop that makes economic sense as it has a high value per millilitre of water and requires approximately 700mm of rain per season.

Cultivation method

During the preparation of a cotton field, the soil is loosened and a fine, firm seedbed is prepared. "The irrigation system applies enough fertiliser throughout the season and weeds are also controlled," he says.

Just before harvest time, cotton plants are sprayed. As a result, bolls are forced to open and the plant sheds its leaves. After harvesting, cotton plant residues are finely chopped and ploughed deep into the soil as fertiliser for the next planting.

"Cotton is known as an excellent crop for crop rotation. Wheat and maize

do much better after a cotton harvest as cotton's taproot removes all the old fertiliser from the fields before maize and wheat are planted," Reid explains.

According to Reid, the length of the cotton fibre determines the quality and price of the cotton produced. The longest fibres are woven into cotton fabric of the highest quality. He says that cotton fibres are approximately two to four centimetres long. "About nine-tenths of these fibres consist of cellulose, a durable carbohydrate found in all plants, while the remainder is made up by water and other substances."

From plantation to clothing

"Processing is simple. The cellulose fibres are separated from the seed and transformed into cotton yarn, which is woven into textile fabric. A cotton gin separates the harvested cotton fibres and seeds. The fibres are then compressed into bales before being placed in protective bags, ready to be taken to the factory," he explains.

Many household products, such as cooking oil, margarine, soap, soap powders and linoleum, are made from cotton oil.

GWK Cotton

GWK Cotton creates ideal opportunities for its growers to get involved in cotton cultivation. These opportunities include access to infrastructure, such as a ginnery at Modder River and John Deere cotton pickers, in the GWK service area.

GWK offers comprehensive services to producers. These include harvest financing, agricultural services and research, harvesting of cotton fields, logistical support, processing of raw cotton into ribbon and seed, as well as marketing to local and international buyers.

For more information, contact GWK on 053 298 8457 or email Fanus Linde at fanusl@gwk.co.za.