

# Kutch's Wagad or Kala cotton: Back from the (almost) dead

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• *Wagad cotton, an indigenous cotton variety grown in some areas of Kutch, is rain-fed, resilient to pests and diseases and requires little care. However, it lost the race of popularity to American cotton and later, to Bt-cotton.*

*The 'by default organic' Wagad cotton now has an organic certification and was branded as Kala Cotton in 2010-11. It has since been used to make sustainable, modern-day goods.*

*Scientists say desi cotton like Wagad could replace areas currently under American cotton as a result of higher resilience to climate change.*

Once upon a time, in the semi-arid plains of Kutch, grew plants that bore soft white tufts of indigenous, Wagad cotton. The cotton's softness was in contrast to its hardy nature—it required little water, no pesticide, and overall, very little care—perfect for the present-day situation of drought and water scarcity. However, with the introduction of the long-staple variety of American cotton, indigenous or [desi](#) cotton such as Wagad lost its popularity, until the point that it was [almost](#) lost. An initiative to revive this short-staple, indigenous variety of cotton—particularly when the charm of Bt-cotton is wearing off and water scarcity is becoming a stinging reality—is, however, slowly bearing fruit.

## Shifting dynamics

Around the time of the Indian Independence, the ratio of [desi](#) cotton to American cotton was 97:3. "Today," said V. N. Waghmare, director of the [Central Institute of Cotton Research](#) (CICR), Nagpur, "the ratio has flipped. [Desi](#) cotton has reduced to just about 3 percent." American cotton had a lot going in its favour—"the ball size is bigger and it is easier to pick," according to Waghmare —while the

desi

variety has smaller ball size and harvesting was laborious. "In the beginning, the fibre quality of

desi

cotton was also poor and it led to more research on American cotton," Waghmare said. "In 1971, the first hybrid cotton variety was released. It further led to a decrease in

desi

cotton area." Kutch's Wagad cotton suffered the same fate. The lower yields, as compared to the newly introduced varieties, became an issue and as Mavjibhai Paddhar, a farmer and mill-owner in Kutch said, "when drip-irrigation and water from the Narmada became a reality, farmers turned to irrigated cotton varieties instead of the rain-fed Wagad." Kala cotton in the farm. Photo courtesy Khamir. Another reason for its diminishing demand in the market was that like most other desi varieties, Wagad cotton is a short-staple variety. Unlike the long-staple variety, this gives a coarse texture. Ironically, this very coarseness of the "people's cotton" that we were used to wearing earlier and was ideal for the country's weather conditions led to its downfall. Shailesh Vyas of [Satvik](#), an organisation that works on organic farming, in fact, went on to say that "low-yield was not as much of an issue as its lowering significance was." "In 1987, we saw the worst drought—Bhuj received only 2 mm rainfall. Even then the production of Wagad cotton was 3.5 metric tonnes," he said, "But once its significance was lost, its price became stagnant. It was branded not-a-modern-day-cotton." It is ironic that

desi

cotton, with its 5000-year heritage of producing the finest fabrics, even muslin, should have suddenly lost its significance. Meena Menon, journalist and co-author of the book, *A Frayed History: The Journey of Cotton in India*, said that during the colonial rule, the long-staple variety that produced finer cotton was introduced by the British. "Mills were set up and long-staple cotton was encouraged so much so that farmers left food crops to grow cotton," she said. [Read Meena Menon's article for Mongabay-India on "the lost desicotton heritage](#)

[the lost desicotton heritage](#)

“. From being spun into everyday wear, Wagad's significance was reduced to being used for making things like mattresses and bandages. "All of this effectively broke the unique value chain between desicotton farmers, weavers, those doing natural dyeing, and the market," said Ghatit Lehu of Khamir, the NGO that pushed the revival process of Wagad cotton a decade back. Not all hope is lost To be fair, Wagad was not completely lost in Kutch, although the downward spiral had been gaining pace. According to the CICR's Vision Cover 2050, the cotton area in Gujarat doubled to reach 3.03 million hectares in 2011, from 1.57 million hectares in 2000. "About 50 percent cotton area in Gujarat is irrigated," states the report. The rain-fed Wagad cotton has however continued to be grown in pockets of Rapar and Bhachau talukas of Kutch, mainly because "these areas suffer from water scarcity and irrigated farming has not yet reached them."

Hand picking of Wagad cotton in the farm. Photo courtesy Khamir. Wagad requires less water, unlike Bt-cotton, and is resilient to pests and diseases. "It is diploid, unlike Bt-cotton that is tetraploid, which means that it doesn't yield to cross-pollination and is self-conserving," said Vyas from Satvik. Wagad is typically sown in September and is harvested around February. About 2,500 farmers in Rapar, grow Wagad cotton, said Devsi Parmar of the NGO SETU Abhiyan. "Even then, the numbers are not as high as they used to be," Parmar, who is also a farmer, said. "About 20-25 years ago, 25,000 out of 50,000 farmers in around 20 villages of Rapar were growing Wagad cotton. Here, although Bt-cotton was not an issue because of the water problem, farmers started replacing Wagad cotton with crops like castor and cluster beans that fetched a good price in the market," he said. Almost two decades back, Wagad cotton would fetch Rs 1300-1400 per 40 kgs (1 mun); it dipped to Rs 600-700 per 40 kg about ten years back. No wonder then that farmers like Kalyanbhai Nathubhai of Rapar, who used to grow Wagad in 20 acres of his 35-acre agricultural land at one time, gradually decreased his desi cotton cultivation and replaced it with other more profitable crops like castor. Organisations like SETU tried to arrest this trend by

encouraging farmers to do mixed cropping—for example, Wagad cotton and castor, Moong and Bajra—to minimise losses. Land rotation—when one crop is grown one year and a different crop the next, is also practised to retain soil vitality. But the lowering demand in the market and poor price continued to beat upon the fate of Wagad cotton. A village called Bakhel in Rapar, for example, completely stopped growing this desi cotton, setting off alarm bells among organisations working on bringing back this indigenous cotton to Kutch. *Sizing of Kala warp. Photo courtesy Khamir.* It was the quintessential battle between the market forces; between demand and supply. To deal with this, parallel efforts by different organisations were underway. One of them was to get organic certification for this cotton, which many experts call 'by default organic' because farmers don't use any pesticide for it. The path to revival "Getting an organic certification for Wagad cotton helped improve its stand in the market. This was in 2011-12 and it made a big difference in the way the market started viewing this Old World cotton," Parmar said. The change in the price range went from Rs 700 per 40 kg to Rs 1500-1600 per 40 kg. Vyas agreed that the certification helped Wagad cotton get the attention and importance it deserved. Satvik, in the meanwhile, was lobbying with different mills to use Wagad cotton in their clothes. "We approached Arvind Mills in 2007-08 with Wagad cotton's unique feature of being organic, strong, and a little coarse. We worked together for three-four years," Vyas said, adding that this helped pass the message that this Old World cotton can be used for modern day clothing. "Unfortunately, the economic recession hit the organic market in Europe at this time and this affected us as well," he said. Around the same time, the NGO Khamir was looking for alternatives to support small-scale weavers in Kutch who were reduced from around 2,000 in the mid-1990s to a mere 600-700 following rapid industrialisation after the 2001 Kutch earthquake. The weavers could not cope with the changing market dynamics, and as Ghatit Leheru of Khamir said, they were looking for a local, natural fibre as an alternative to synthetic fibre. "It so happened that Satvik approached us with Wagad cotton at this point. It was robust, local, and eco-friendly. We decided to make it a brand and promote it under the brand name, Kala cotton," Leheru said. Wagad cotton was branded as "Kala cotton" in 2010-11. The name 'kala' means cotton pod — the core of the cotton. Khamir's Kala Cotton Initiative saw other organisations, like SETU Abhiyan and others also join hands, thereby making it a collaborative effort towards a single aim of reviving indigenous cotton. Starting small, Khamir began working with 11 Kala cotton farmers and connected them to a small mill that is dedicated to this cotton. Mavjibhai Paddhar, the owner of this mill, said, "The farmers send their harvest to us and we pay Rs 1500-1600 per 40 kg (1 mun) of Kala cotton." "The rate for Bt-cotton is still higher—about Rs 2500 per 40 kg—and its production is about 40 mun (1600 kg) per acre of land. Kala cotton production is 20 mun (800 kg) per acre. But with water scarcity becoming a reality now, the production of Bt-cotton has gone down to 30-35 mun per acre; plus there's the cost of pesticides. Kala cotton has no production costs—it just needs rain at the beginning of sowing," the mill-owner added. Bt-cotton, author Meena Menon said, has further added on the problem of secondary pests like whitefly, further increasing the use of pesticides. In its push for this Old World cotton, Khamir is also promoting hand-spinning and has brought in ginners, such that "the link that was broken—of farmers, ginners, spinners, weavers, and finally, the market—is slowly getting re-established." *Raja Haja Vankar weaving Kala cotton. Photo courtesy Khamir.* The journey to this point, however, was not easy. Kala cotton's short staple-length makes it difficult to spin and weave and initially, Khamir and Satvik had to consult experts about developing a process to convert it into yarn. Convincing weavers was another challenge because it required working on a different loom set-up. After weeks and years of fine-tuning, Khamir finally launched its line of Kala cotton goods in 2010. Heading with its USP of sustainable fabric and fashion that is hand-woven and naturally dyed, Khamir also began associating with designers and found its first patron in Archana Shah of the brand, Bandhej. "Initially we wanted to make it (Kala cotton fabric) very fine, but then we realised that its uniqueness lies in its natural form. So we decided to maintain the coarseness," Vyas said, explaining how, depending on the count of the thread, the fabric can be made into top-wear and bottom-wear, or upholstery. More farmers are now associated with the Kala Cotton initiative and more than 250 weavers are working as part of it. "The system is now in place," he said. These efforts, said CICR's Waghmare, are in the right direction. CICR's Vision Cover 2050 report says, "By 2050 it may be possible that *desi* cotton species *Gossypium arboreum* could replace a majority of the area that is currently under American cotton species *G. hirsutum*, in light of climate change-related weather vagaries and focussed systematic breeding efforts for fibre quality improvement of *desi* cotton." "This year we released one variety of

desi

cotton which yielded 40 quintals of cotton," Waghmare said. As for the farmers on the ground, the tide is slowly turning. "We have seen what too much pesticide has done to the land in our neighbours like Punjab," Mavjibhai said, "We don't want our soil, our land to become dead." First published by Mongabay India on Jul. 2019