

# The Application and Market Prospect of Hemp Textile Industry in China

## 汉麻在中国纺织领域的应用与市场前景



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# Acreage of hemp in China

## 汉麻种植面积

Industry hemp, which is called “Hanma”, has the largest planting acreage as a kind of bast crop in China. It is planted in many provinces, such as Heilongjiang, Jilin, Liaoning, Neimenggu, Gansu, Shanxi, Shanxi, Ningxia, Anhui, Shandong, Henan, Yunnan, Guizhou, Sichuan. There are 40,000 ha in 2016, 46,667ha in 2017, which of 70% were used in textile field. Heilongjiang province is the material base of hemp textile in China, with an annual planting area of 28,000 ha.

中国称工业用大麻为“汉麻”，汉麻是中国目前种植面积最大的麻类作物，有十几个省种植，如黑龙江、吉林、辽宁、内蒙、甘肃、山西、陕西、宁夏、安徽、山东、河南、云南、贵州、四川。2016年种植40000公顷，2017年种植46667公顷，70%原料用于纺织领域。黑龙江省是中国汉麻纺织原料生产基地，年种植面积28000公顷。



# Hemp varieties for fiber

## 纤维用汉麻品种

Hemp varieties grown in China are both dioecism varieties bred in China. The outstanding advantages are fine fiber, good spinnability and high quality raw materials for textile enterprises.

中国种植纤维用汉麻品种均是国内选育的雌雄异株新品种，突出优点是纤维品质优良、可纺性好，是纺织企业需求的优质原料。

Testing and spinning test results of different varieties of long linen  
不同品种长麻检测和纺纱试验结果

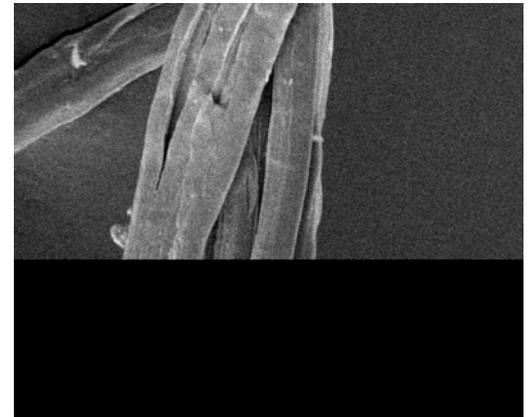
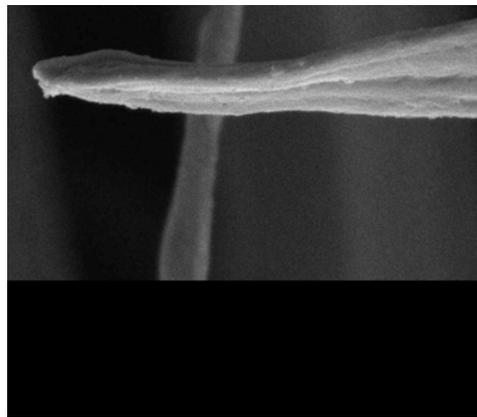
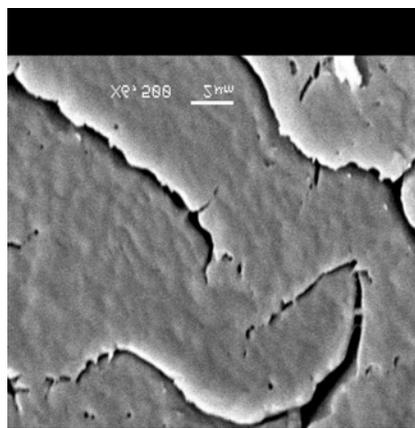
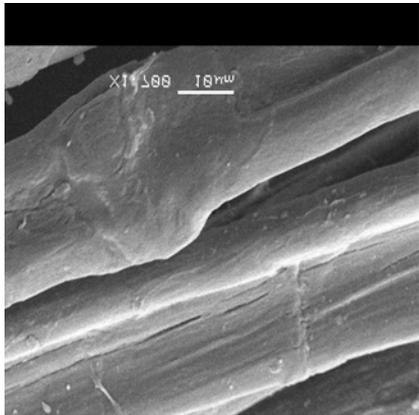
Varieties types品种类型	Origin来源	Fiber content麻率 (%)	Strength强力 (N)	Disintegration degree分裂度 (Nm)	Pure yarn纯纱线 (Nm)
Dioecism(Cannabis No.1)雌雄异株 (火麻1号)	China中国	24.1	500	151	36-65
Dioecism(Hemp No.2)雌雄异株 (汉麻2号)	China中国	24.5	438	105	36-60
Dioecism(Hemp No.5)雌雄异株 (汉麻5号)	China中国	25.4	507	135	36-60
Monoecism(Hemp No.1)雌雄同株 (汉麻1号)	China中国	26.7	393	85	10-20
Monoecism(Hliana)雌雄同株 (格里昂)	Ukraine乌克兰	29.5	460	62	10-20
Monoecism(Hlesiya)雌雄同株 (格列西亚)	Ukraine乌克兰	33.6	463	46	10-15
Monoecism(Silesia)雌雄同株 (西里西亚)	Canada加拿大	28.5	472	75	10-30

# Characteristics of hemp fiber

## 汉麻纤维的特性

The hemp fiber is a functional natural fiber material, which has five characteristics, such as moisture absorption, ventilation, antibacterial and bacteriostasis, anti ultraviolet sound absorption, antistatic and soft comfort.

汉麻纤维具有吸湿透气、抗菌抑菌、抗紫外线吸音消波、防静电和柔软舒适五大特性，是一种功能性天然纤维原料。



# Application in textile field

## 纺织领域的应用

### Spinning 纺纱



**Wet spinning:** The wet spinning process is to use the long linen as the raw material after the degumming of the rain and hemp stalk, and the 24, 28, 30, 36, 40, 48 and 60 Nm pure hemp yarns are produced by the wet spinning process equipment.

**湿纺工艺:**是利用雨汉麻茎杆雨露脱胶后的机制长麻为原料，利用湿纺工艺路线设备纺织出**24、28、30、36、40、48、60Nm**纯汉麻纱。



**湿纺**  
**Wet spinning**

# Spinning 纺纱



**Dry spinning:** The process of dry spinning is to form short hemp warp off glue from the long linen processed by the mechanism to form the hemp short staple fiber (length  $> 32\text{mm}$ , fineness  $> 3200\text{Nm}$ ). Hemp fibers are mixed with cotton, wool and chemical fiber, and 21, 28, 32, 40, 50, 60, 80 and 100S blended yarns are produced by dry spinning process. The fineness of the flax fiber is 2000 Nm, and the 60 Nm pure yarn can be spun.

**干纺工艺**→是将机制加工长麻落下的短麻经脱胶形成汉麻精细短纤维（长度 $>32\text{mm}$ ,细度 $>3200\text{Nm}$ ）。汉麻纤维与棉、毛、化纤混合，利用干纺工艺路线设备出**21、28、32、40、50、60、80、100S**混纺纱。麻条纤维细度2000 Nm，可纺60 Nm纯纱。



干纺  
Dry spinning

# Fabric 面料



Fabric: hemp fabric includes pure hemp, hemp cotton mixture, hemp fiber mixture, hemp silk mixture, hemp wool blended hemp, cotton, chemical fiber mixing and other types. Market share is cotton blended with hemp > three (hemp, cotton, chemical fiber) in one > pure hemp > pure hemp, hemp and wool.

面料：汉麻麻面料包括纯麻、麻棉混、麻化纤混、麻丝混、麻毛混和麻、棉、化纤混合等多种类型。市场占有率是麻棉混>麻、棉、化纤三合一>纯麻>麻丝和麻毛。

# Hemp fabric 汉麻面料



# Apparel 服饰

Hemp fabric is 3 times wettability than cotton, and its bacterios tatic and bactericidal properties are better than that of linen, ra mie, cotton, wool, silk and chemical fiber. It can shield more th an 95% ultraviolet rays, and the fabric has better wrinkling than flax. Hemp military clothing, high-end clothing, underwear and so on have the advantages of health care, beauty and comfort.

汉麻面料排湿性是纯棉的3倍，抑菌杀菌性好于亚麻、苧麻、棉、毛、丝和化纤。可屏蔽95%以上的紫外线，面料褶皱性好于亚麻。汉麻军用服装、高档服饰、内衣等具有保健、美观、舒适优点。

# Hemp apparel 汉麻服饰



■ 用汉麻做成的服装舒适干爽。



Underwear,  
shoes,  
socks  
内衣、鞋、  
袜

Experiments showed that the diameter of *Staphylococcus aureus* bacteriostatic circle is 9.1mm on hemp fabric , 7.6mm of *Pseudomonas aeruginosa*, 10mm of *Escherichia coli*, 6.3mm of *Candida albicans*. It has obvious killing and inhibiting effects on *Trichophyton* plaster, *Penicillium* and *Aspergillus*. Underwear, shoes and socks containing hemp fiber have antibacterial, bactericidal, hygroscopic, sweating, deodorant and beriberi effects.

汉麻织物金黄色葡萄球菌抑菌圈直径9.1mm、绿脓杆菌7.6mm、大肠杆菌10mm、白色念珠菌6.3mm。对石膏样毛癣菌、青霉、曲霉等有明显的杀灭、抑制作用。含有汉麻纤维的内衣、鞋、袜具有抑菌杀菌、吸湿、排汗、防臭和去脚气效果。



# Hemp home product 汉麻居家 产品

Hemp, with natural characteristics of bacteriostasis, moisture absorption and breathable, cool and pleasant, antistatic, is also a kind of high quality raw material for home products, bringing people comfort, health, environmental friendly, colorful home life.

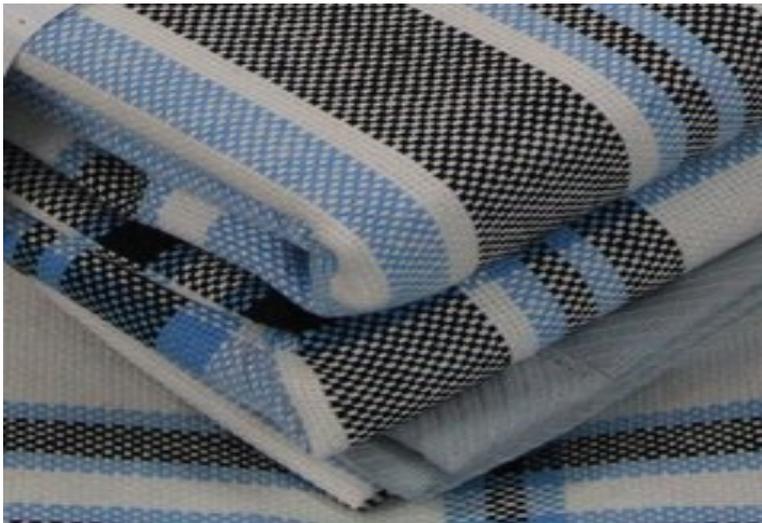
汉麻天然的杀菌抑菌、吸湿透气、凉爽宜人抗静电性能，也是居家产品优质原料，给人们带来舒适、健康、环保、多彩的居家生活。

**A colorful bed with weaving, printing, jacquard and embroidery.**  
**织造、印花、提花和刺绣多彩风格的床品**



# Curtains, tablecloths, mats, cushions

窗帘、桌布、凉席、靠垫



# Hemp clinical and hygienic product 汉麻医卫 用品

Natural hemp fiber has the advantages of antibacterial, breathable, fast drying and ultraviolet prevention. It provides great raw materials for the development of medical gauze, children's urine, sanitary pad, towel, mask and other products.

天然大麻纤维具有抗菌、透气、速干、防紫外线等优点，为开发医用纱布、儿童尿不湿、卫生护垫、毛巾、湿巾、面膜等产品提供原料。

# Hemp clinical and hygienic product 汉麻医卫用品



# Hemp clinical and hygienic product 汉麻医卫用品



# The market prospect of Chinese hemp textile products

## 汉麻纺织产品市场前景

1. With the excellent characteristics of hemp fiber, Chinese enterprises have invested huge manpower and material resources in technological innovation and product development of hemp textiles, and have achieved fruitful results. Hemp textiles are gradually entering into people's lives, and have been recognized and favored by consumers. It has become the most potential fiber in bast textile fibers.

1、大麻纤维的优良特性，中国企业纷纷投入巨大的人力物力进行大麻纺织科技创新和产品研发，并取得了丰硕成果。大麻纺织品正逐步走进人们的生活，深受消费者的认可和青睐，成为麻纺织纤维中最具市场潜力的纤维。

2. Hemp textile market has not yet reached the largest development and expansion, and has not yet formed large scale.

2、大麻纺织品市场仍未能达到最大的开发和拓展，未形成规模化。

3. The advantage of hemp raw materials is better than that of flax. The development trend of the future market is that, the quality and types of hemp spinning products will be instead of some linen products.

3、中国汉麻原料优势优于亚麻，未来市场的发展是汉麻纺纺品质量和种类将逐步替代部分亚麻产品。

Thank you !

