



2025

# Black Energy Production Manual

National Patent Number: ZL201811586319.1

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# 01



## WHY IS BLACK ENERGY USED THREE TIMES

### 1. The seedling stage growth is the key

Only with a solid foundation can it withstand wind and rain; if the seedlings do not grow well during the seedling stage, it will directly affect later yields.

### 2. Nutritional supplement is important

The root system, tillers, stems, ears, etc. will directly affect the base of increased yield.

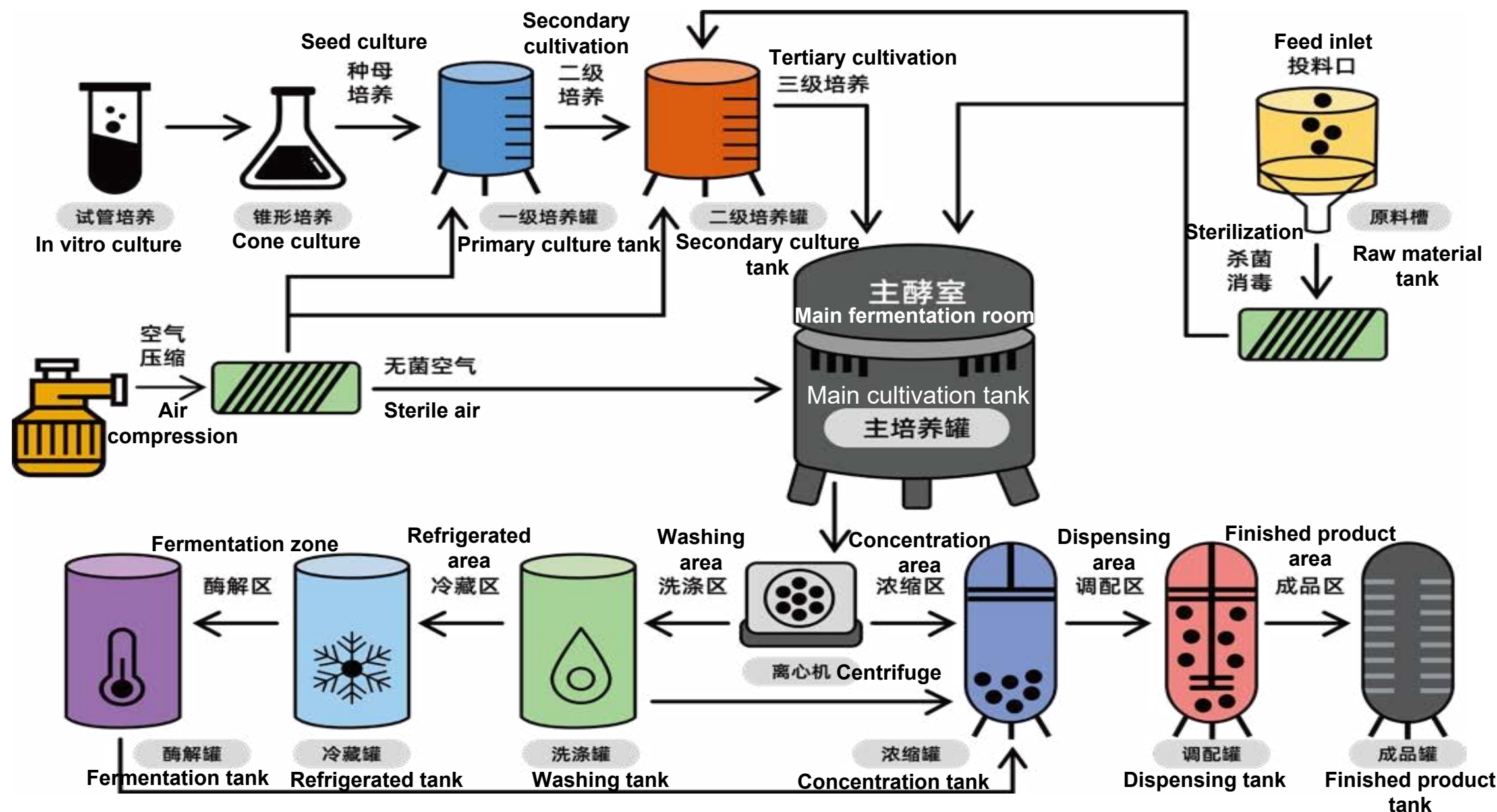
### 3. Increase production is indispensable

Disease resistance, stress resistance, grain filling, thousand-grain weight, quality and yield directly create a dividing line.



# 02

## BLACK ENERGY PRODUCTION PROCESS



### Black energy production process

Black Energy is a patented product developed based on RVGA fermentation technology. It is a high-tech complex of small molecule active peptides and immune-type polypeptide nucleotides. It is rich in efficient active bacteria, immune factors, organic chelated boron, zinc, iron and a variety of free amino acids.

# 03

## BLACK ENERGY APPLICATION KEY POINTS

### STABLE AND ADAPTABLE BLACK ENERGY



No crystallization at low or high temperature



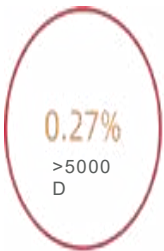
High concentration mixing without reaction and stratification

### WIDELY APPLICABLE BLACK ENERGY

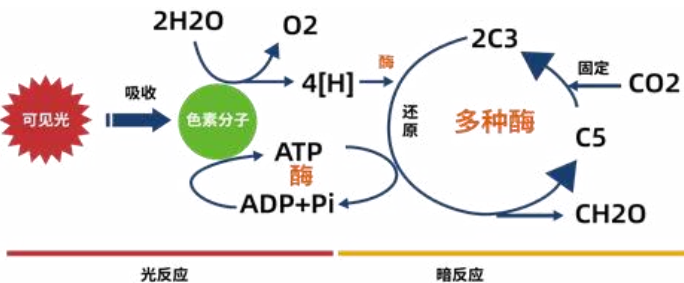


Safe for seedlings, flowers and fruits. Can be used for seed mixing, aerial spraying, drip irrigation, etc., with wide applicability

### COMPOUNDED AND ENHANCED BLACK ENERGY



Small molecule peptides - direct penetration and absorption, no need for conversion, high efficiency pesticide synergy



### IMPROVE QUALITY AND YIELD BLACK ENERGY



Meet the nutritional needs of each growth period, sufficient grain filling, good quality and high yield



# 04

## BLACK ENERGY USAGE TECHNOLOGY



抗逆修复



持久光合



活秆成熟

# WHEAT

APPLY BLACK ENERGY 3 TIMES

## WHEAT USAGE TECHNOLOGY

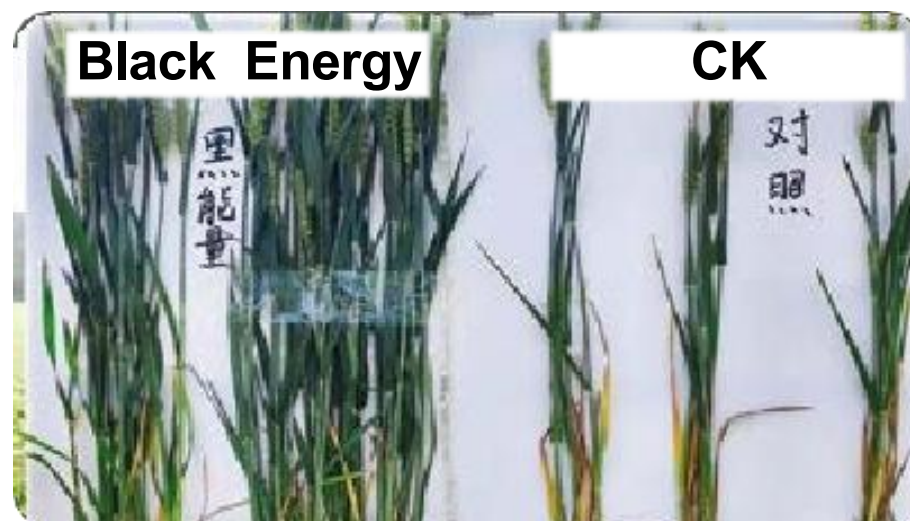
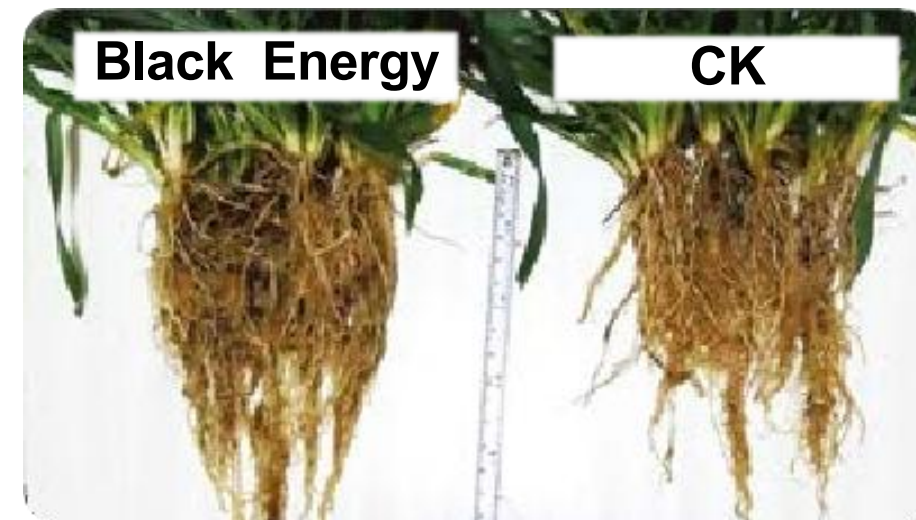
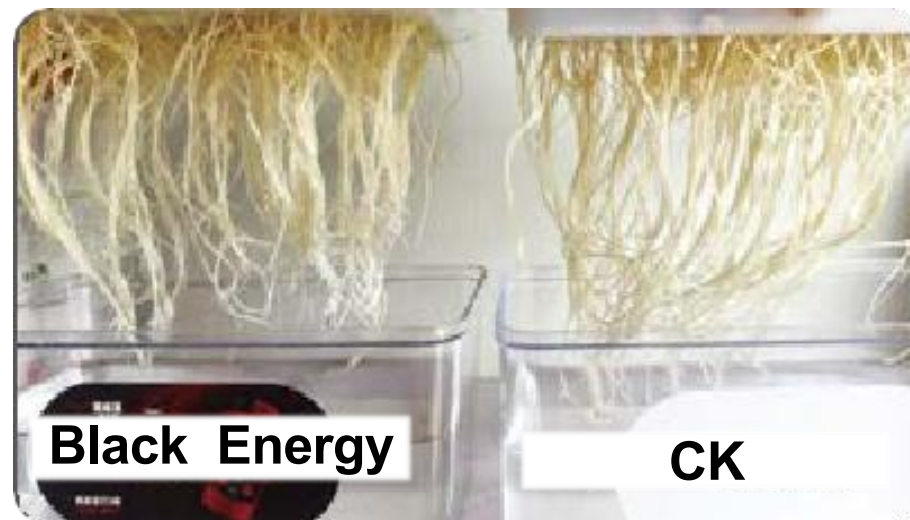
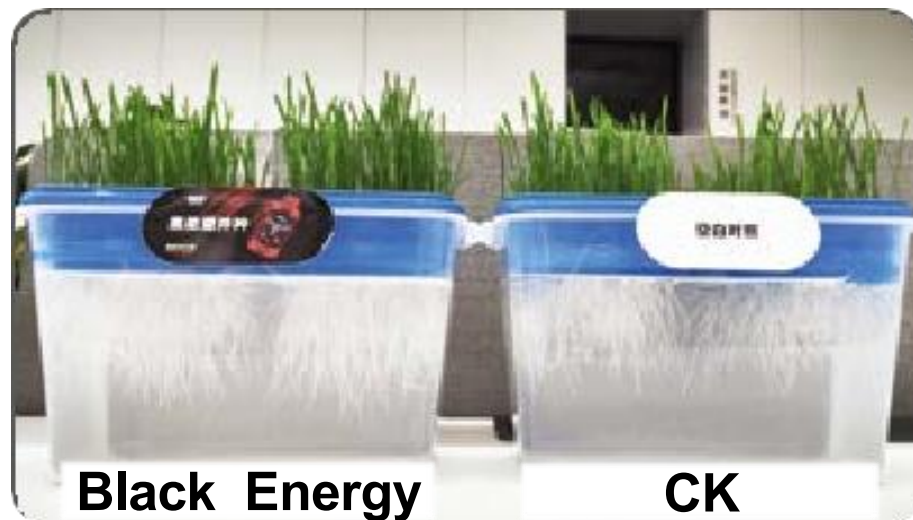
Use Period	Recommended Dosage	Effect
Seed dressing	1ml/kg seeds	Cold and drought resistant, improve germination rate, make seedlings uniform and strong, promote rooting, and enhance stress resistance in the seedling stage.
Tillering period	750 ml/ha	Prevent late spring cold, enrich taproot and capillary roots, promote tillering, make stems thicker, and improve stress resistance.
Heading - flowering period	750 ml/ha	Strong stalks prevent lodging, preserve flowers and increase grains, early heading, large and neat ears, and increase ear rate and grain number per ear.
Grain filling period	750 ml/ha	Prevent premature aging, resist dry hot wind, ensure sufficient grain filling, full ear head, increase thousand-grain weight, improve quality and increase yield.

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## Black energy effect on wheat





BLACK ENERGY WHEAT MEASURED COMPARATIVE YIELD RESULTS TABLE

Area	Test time	Black Energy yield result/kg/ha	Comparison yield result/kg/ha	Increase production/kg/ha	Increase production rate
Xinghua, Jiangsu	2024/5/31	10,357.5	8,212.5	2,145.0	26.11%
Sheyang, Jiangsu	2024/6/5	8,835.0	7,515.0	1,320.0	17.56%
Xi County, Henan	2024/5/30	7,395.0	6,045.0	1,342.5	22.18%
Yicheng, Hubei	2024/5/16	7,897.5	6,330.0	1,567.5	24.76%
Binhai, Jiangsu	2024/6/7	9,780.0	8,145.0	1,635.0	20.07%
Mengcheng, Anhui	2024/5/31	10,387.5	8,790.0	1,597.5	18.17%
Yellow River Beach Base	2024/6/1	7,942.5	6,765.0	1,177.5	17.41%



# RICE

APPLY BLACK ENERGY 3 TIMES

## RICE USAGE TECHNOLOGY

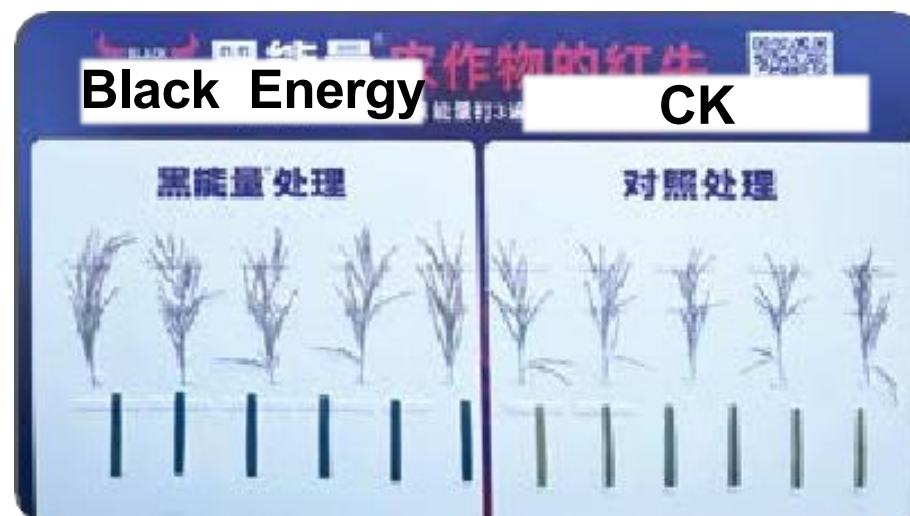
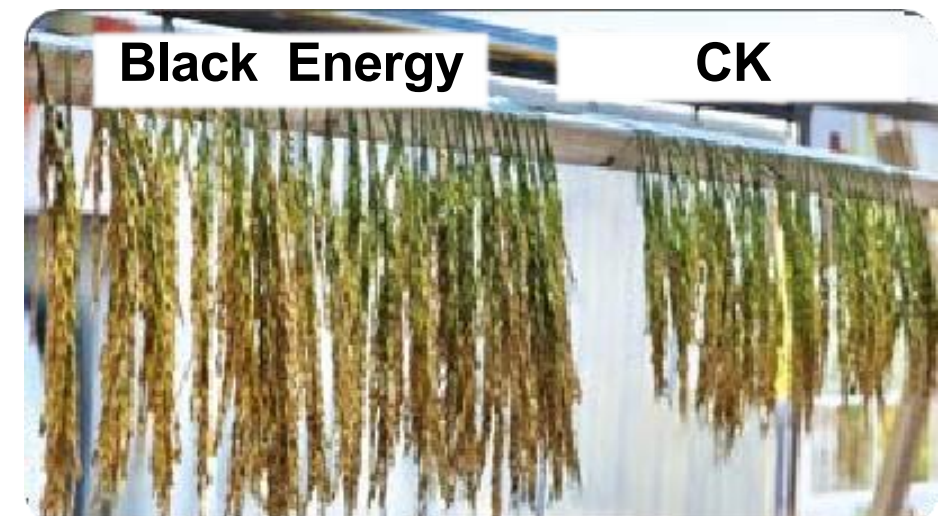
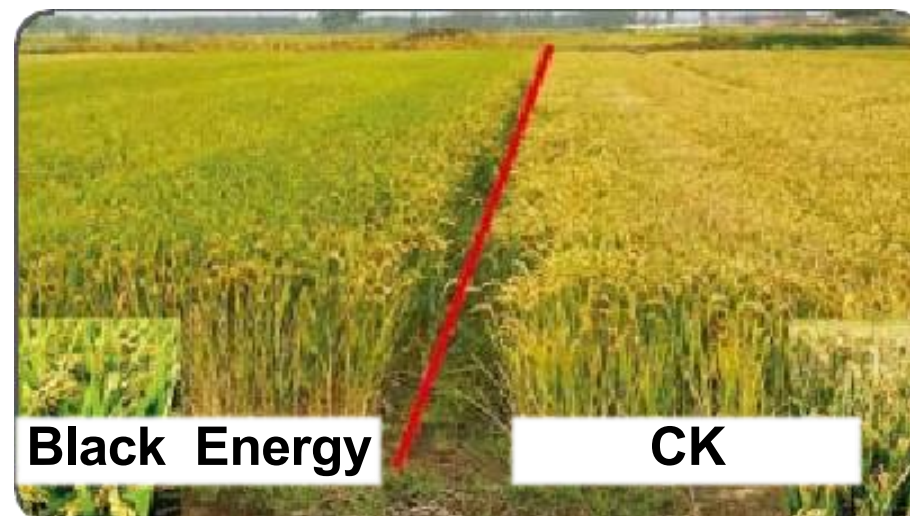
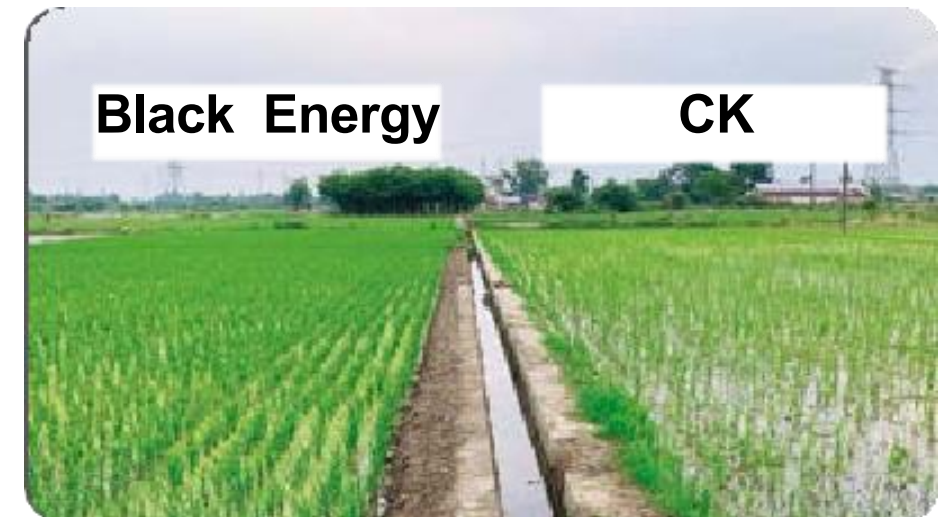
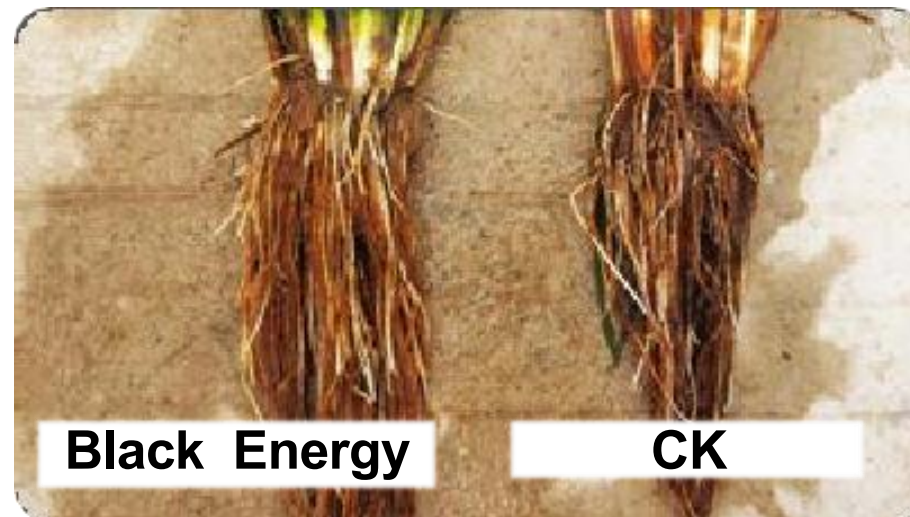
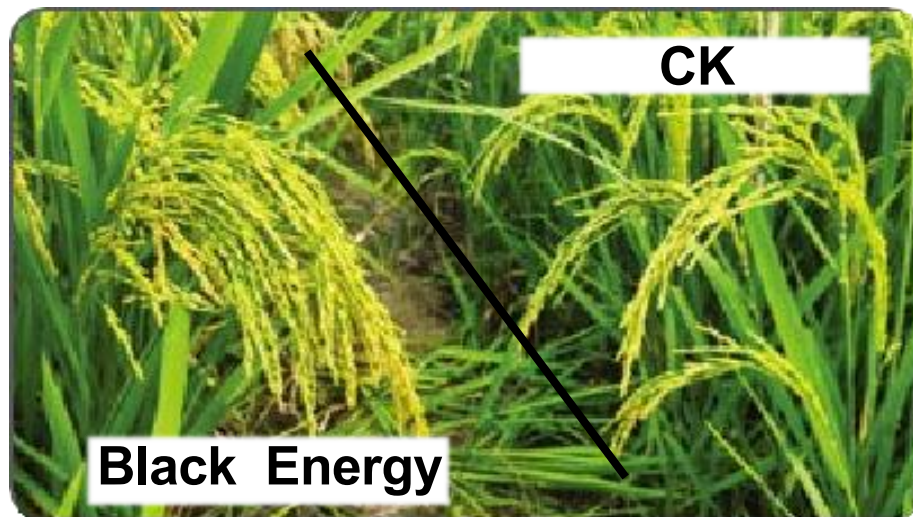
Use Period	Recommended Dosage	Effect
Seed dressing/soaking	1ml/kg seeds	Improve germination rate, enrich taproot and capillary roots, improve stress resistance, make seedlings uniform and strong, and ensure nutrition during seedling stage.
Tillering period	750 ml/ha	Promote rooting, promote effective tillering, ensure photosynthesis, and improve disease resistance and stress resistance.
Breach period	750 ml/ha	Ensure nutrient supply, maintain flowers and increase grains, improve ear formation rate, early heading, large and uniform ears, and improve disease resistance.
Heading stage	750 ml/ha	Strong stalks prevent lodging, ensure healthy functional leaves, sufficient grain filling, plump grains, increase thousand-grain weight, and increase rice yield.

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## Black energy effect on rice





BLACK ENERGY RICE MEASURED COMPARATIVE YIELD RESULTS TABLE

Area	Test time	Black Energy yield result/kg/ha	Comparison yield result/kg/ha	Increase production/kg/ha	Increase production rate
Jian, Jiangxi	2024/7/15	14,385.0	12,712.5	1,672.5	13.16%
Wuchang, Dongbei	2024/9/24	11,392.5	9,810.0	1,582.5	16.13%
Liaozhong, Dongbei	2024/10/11	9,660.0	8,452.5	1,207.5	14.29%
Daoxian,Hunan	2024/10/30	7,770.0	6,802.5	967.5	14.22%
Guanghan, Sichuan	2024/9/28	9,907.5	8,602.5	1,305	15.17%
Yueyang, Hunan	2024/10/24	8,310.0	7,087.5	1,222.5	17.25%
Songyuan, Dongbei	2024/10/13	10,095.0	8,467.5	1,627.5	19.22%
Haicheng, Dongbei	2024/10/13	13,680.0	11,730.0	1,950.0	16.62%



# PEANUT

APPLY BLACK ENERGY 3 TIMES TO

## PEANUT USAGE TECHNOLOGY

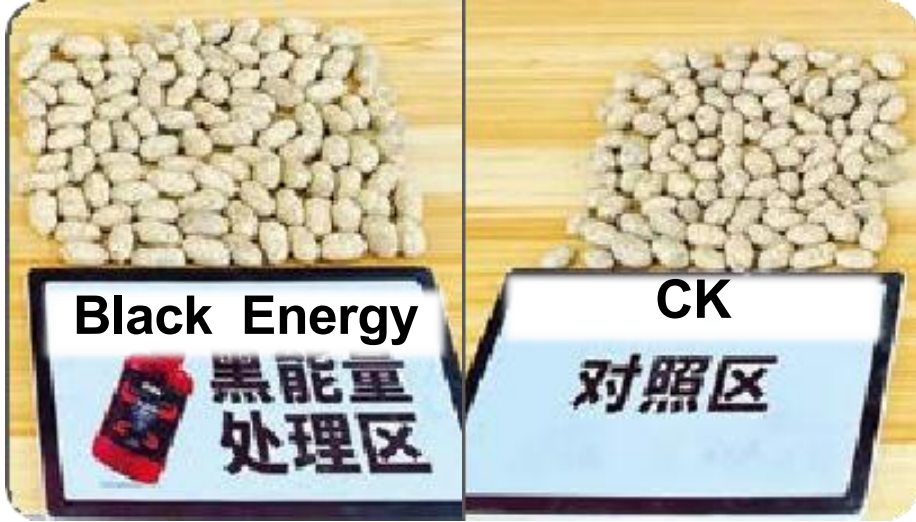
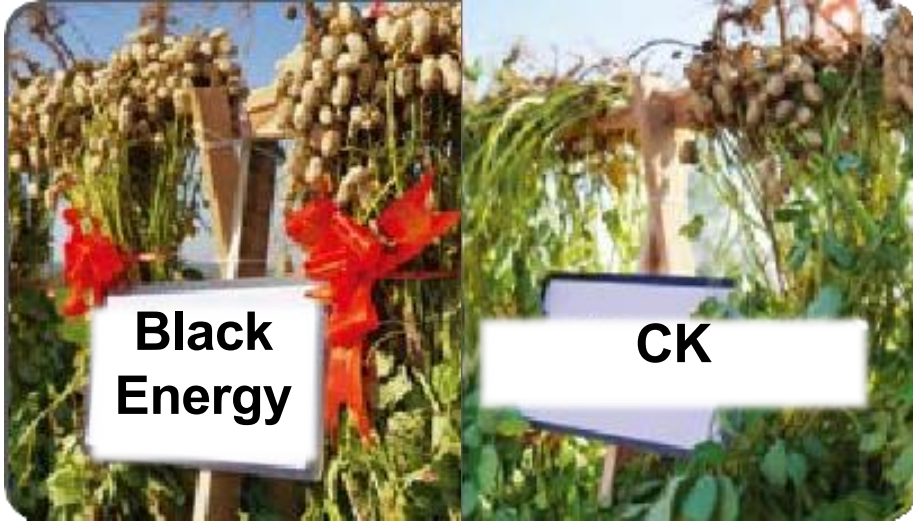
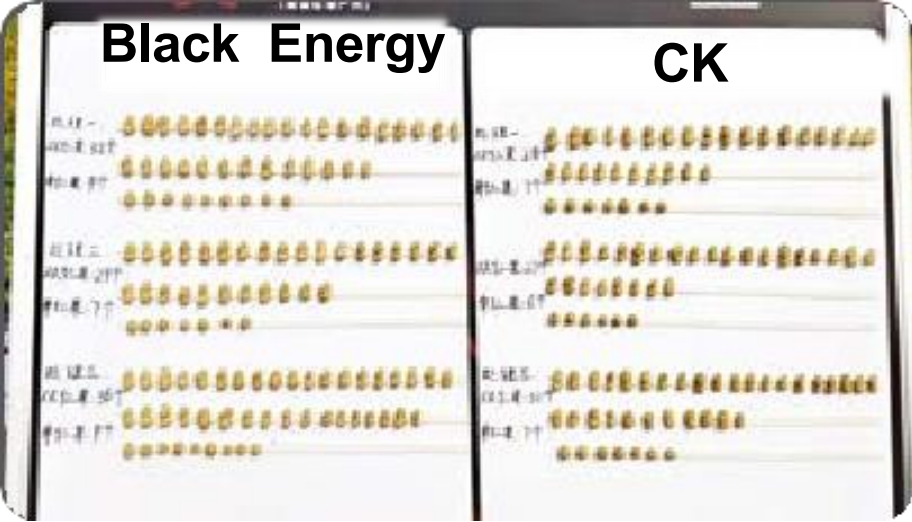
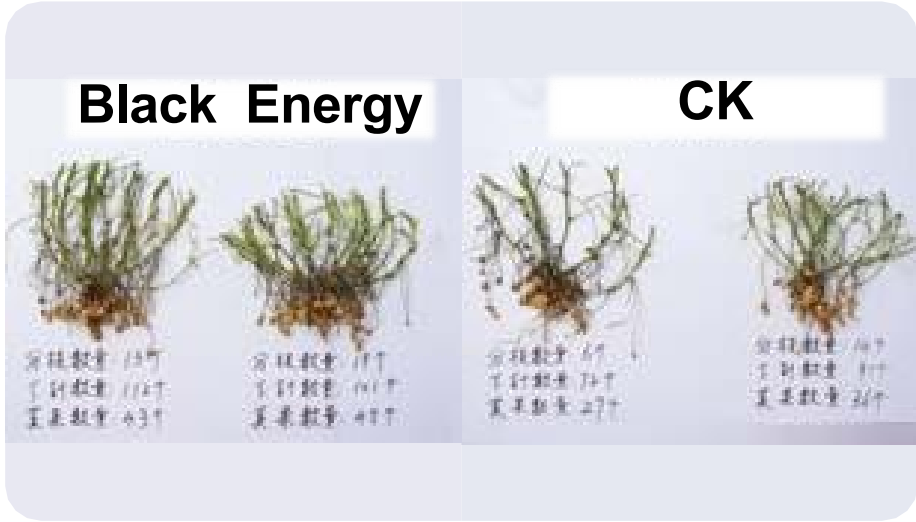
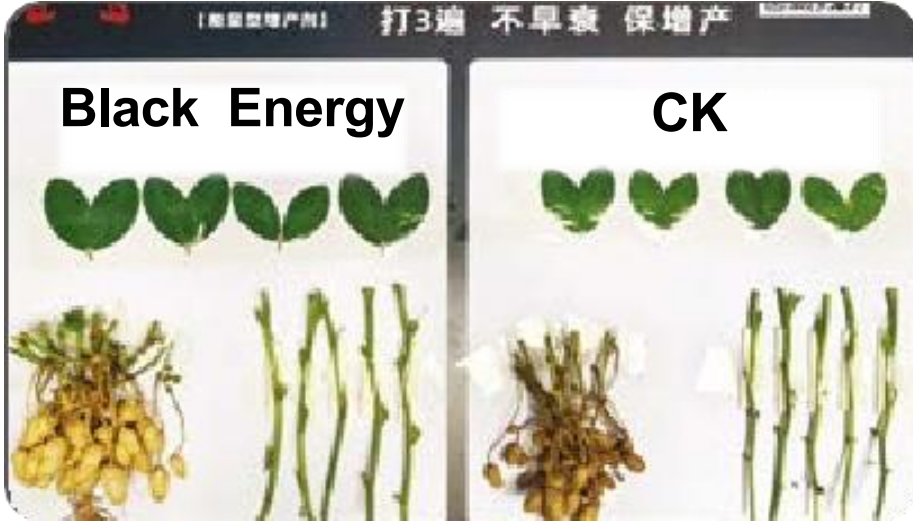
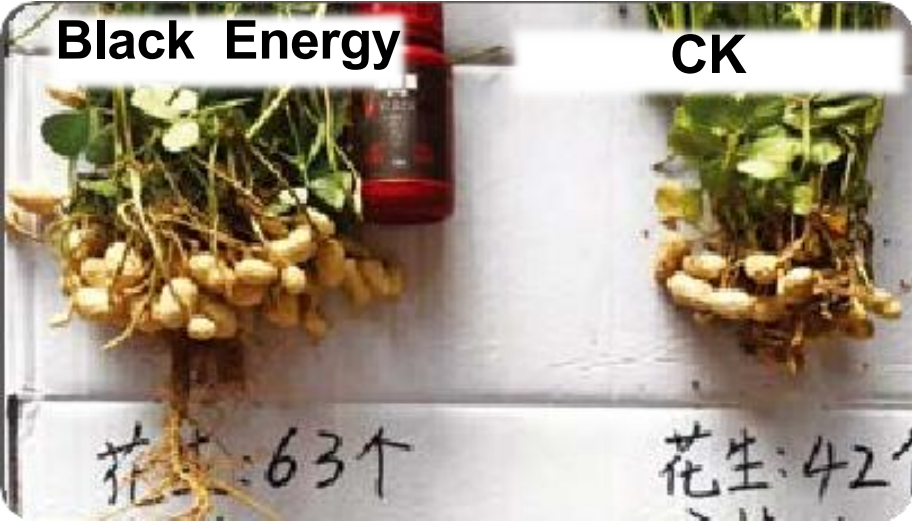
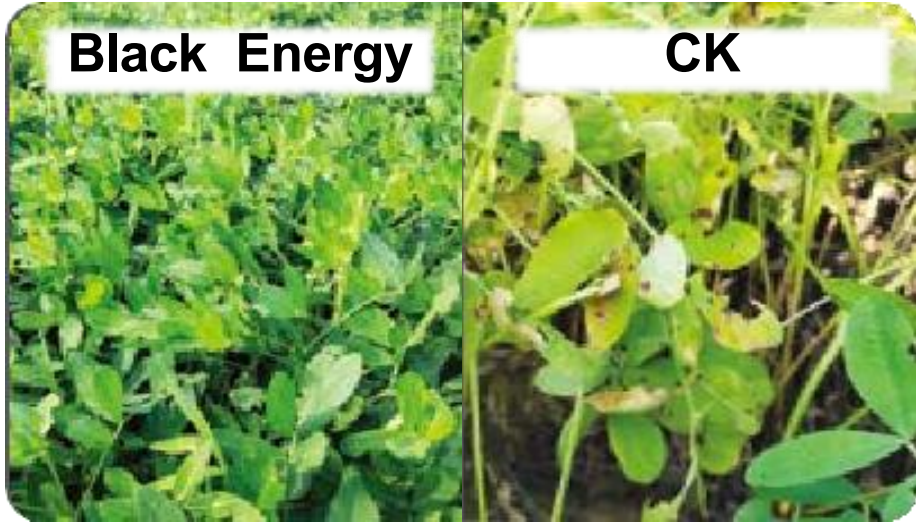
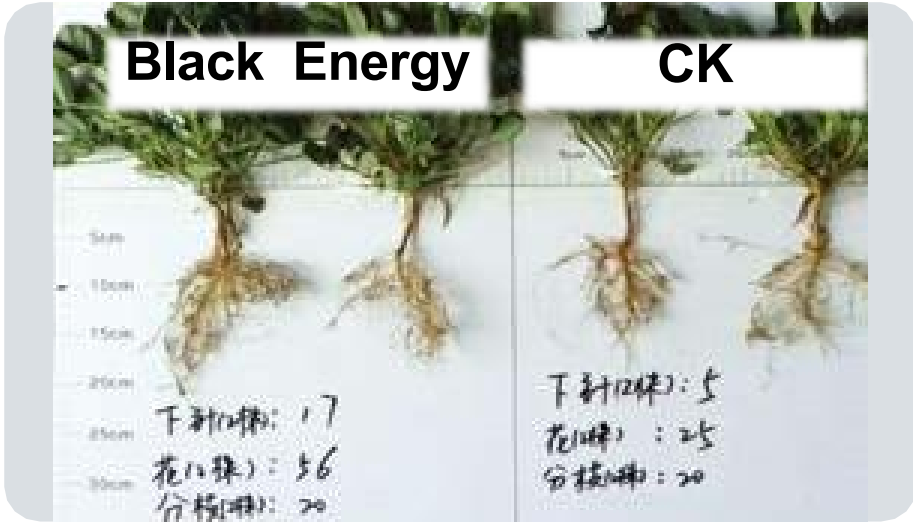
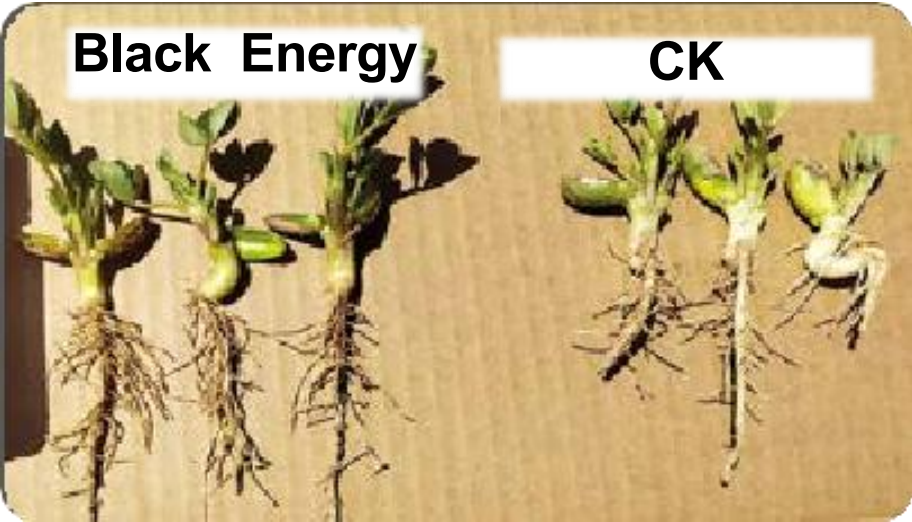
Use Period	Recommended Dosage	Effect
Seed dressing	1ml/kg seeds	Prevent seed rot, increase germination rate, make seedlings uniform and strong, promote root growth and strengthen seedlings, improve stress resistance during the seedling stage, and ensure nutrients during the seedling stage.
Cluster period	750 ml/ha	Many branches, promote root growth and seedling growth, resist drought and waterlogging, effectively increase the formation of rhizobia and capillary roots, and promote water and fertilizer absorption.
Flowering - Needle-dropping period	750 ml/ha	Strong roots and seedlings, early flowering, large number of flowers, fast and large number of needles, increased pod setting rate and number of double-kernel fruits.
Fruit expansion period	750 ml/ha	Improve disease resistance, maintain fruit needle vitality, large fruit, no fruit drop, sufficient filling, white and plump grains.

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# Black energy effect on peanut





BLACK ENERGY PEANUT MEASURED COMPARATIVE YIELD RESULTS TABLE

Area	Test time	Black Energy yield result/kg/ha	Comparison yield result/kg/ha	Increase production/kg/ha	Increase production rate
Shangcai, Henan	2024/9/25	5,310.0	4,215.0	1,095	25.98%
Yicheng, Hubei	2024/8/29	7,155.0	5,610.0	1,545.0	27.54%
Zhoukou, Henan	2024/10/8	7,680.0	6,592.5	1,087.5	16.50%
Zhengyang, Henan	2024/9/29	6,555.0	5,467.5	1,087.5	19.89%
Liaoning, dongbei	2024/10/5	5,310.0	4,515.0	795.0	17.61%
Luanxian, Hebei	2024/10/9	6,405.0	5,235.0	1,170.0	22.35%
Academy of Agricultural Sciences Base	2024/10/15	4,552.5	3,697.5	855	23.12%



# CORN

APPLY BLACK ENERGY 3 TIMES

## CORN USAGE TECHNOLOGY

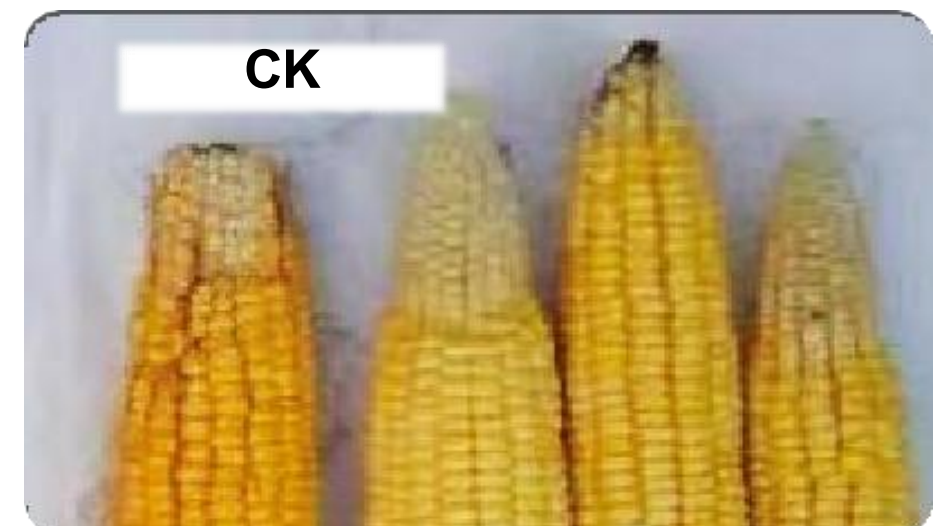
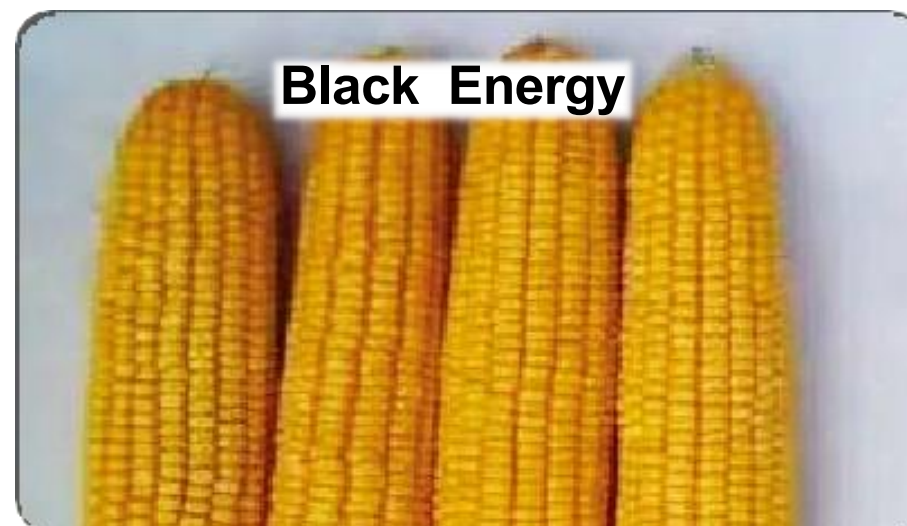
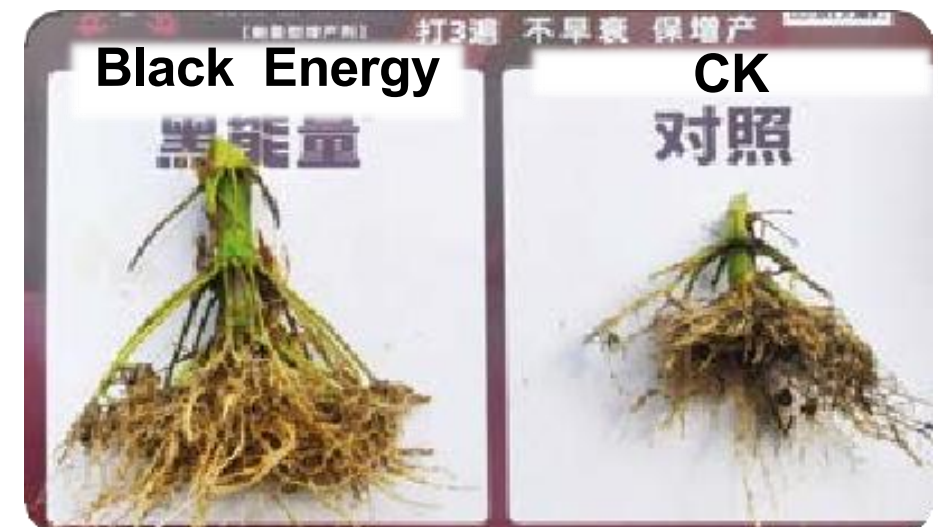
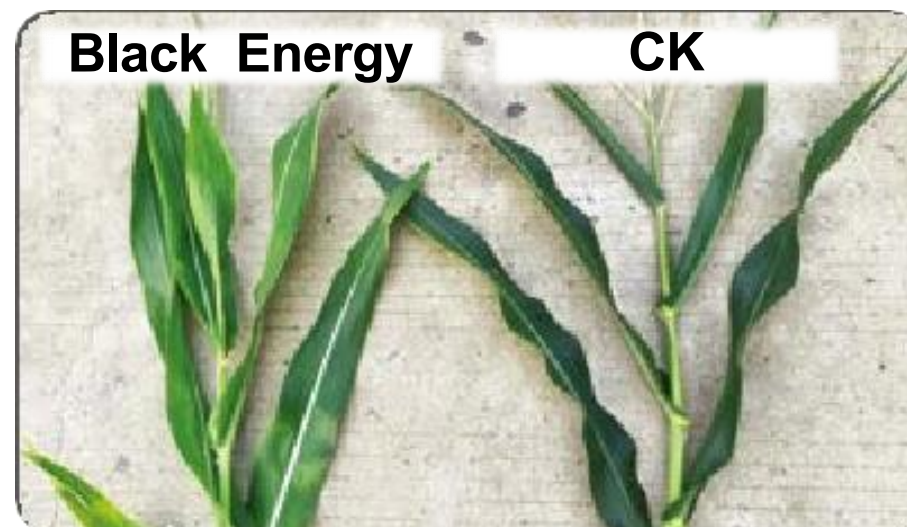
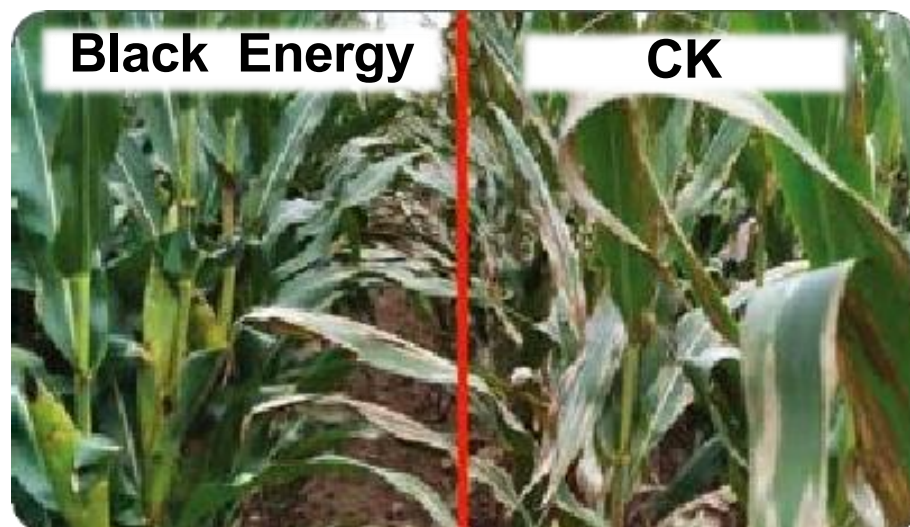
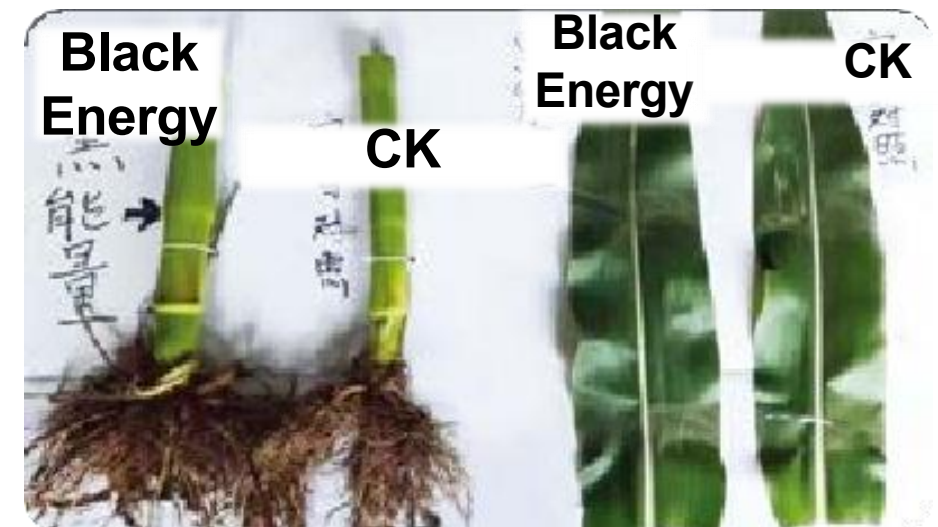
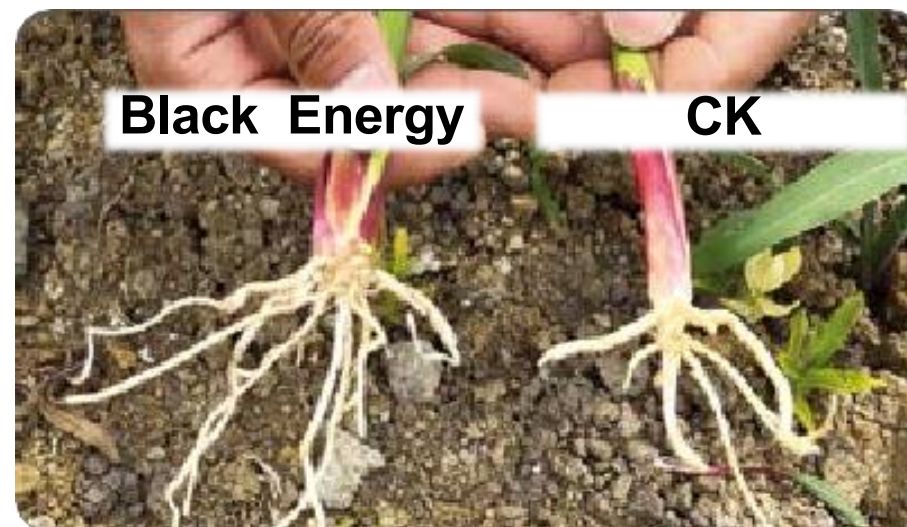
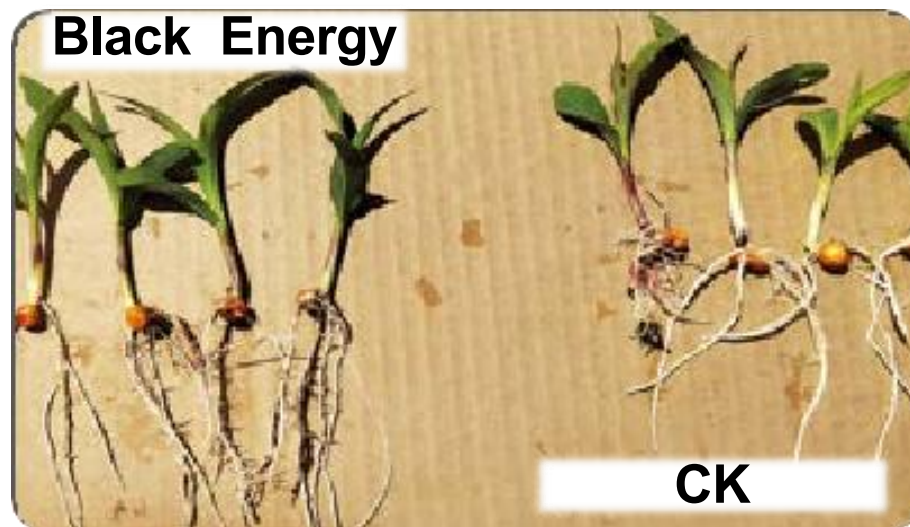
Use Period	Recommended Dosage	Effect
Seed dressing	1ml/kg seeds	Prevent seed rot, increase germination rate, make seedlings uniform and strong, promote root growth and strengthen seedlings, improve stress resistance during the seedling stage, and ensure nutrients during the seedling stage
Small bell mouth period	750 ml/ha	Improve photosynthesis and flood and drought resistance, promote corn nutrition growth and water and fertilizer absorption, and promote root development
Large bell mouth period	750 ml/ha	Promote the formation of overlord roots, strong stalks to resist lodging, broad and thick green leaves, improved disease resistance, and neat growth
Silking period	750 ml/ha	Promote pollen activity, uniform pollination, dark green leaves, strong disease resistance, sufficient filling, no bald tips, heavy cobs

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## Black energy effect on corn





BLACK ENERGY CORN MEASURED COMPARATIVE YIELD RESULTS TABLE

Area	Test time	Black Energy yield result/kg/ha	Comparison yield result/kg/ha	Increase production/kg/ha	Increase production rate
Mengcheng, Anhui	2024/9/10	10,350.0	8,685.0	1,665.0	19.17%
Tangshan, Hebei	2024/10/12	12,652.5	10,785.0	1,867.5	17.32%
Haerbin, Dongbei	2024/10/26	13,815.0	11,752.5	2,070.0	17.61%
Xinxiang, Henan	2024/10/9	13,380.0	11,130.0	2,250.0	20.22%



# SOYBEAN

APPLY BLACK ENERGY 3 TIMES

## SOYBEAN USAGE TECHNOLOGY

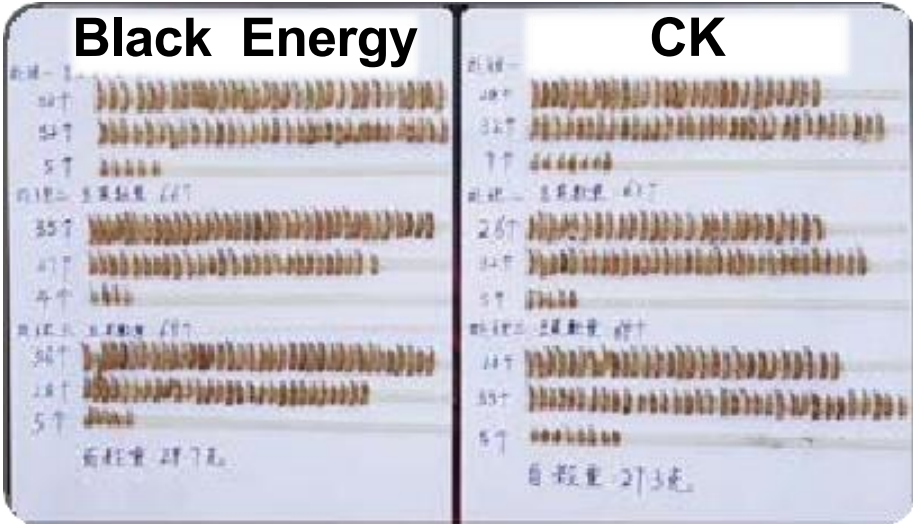
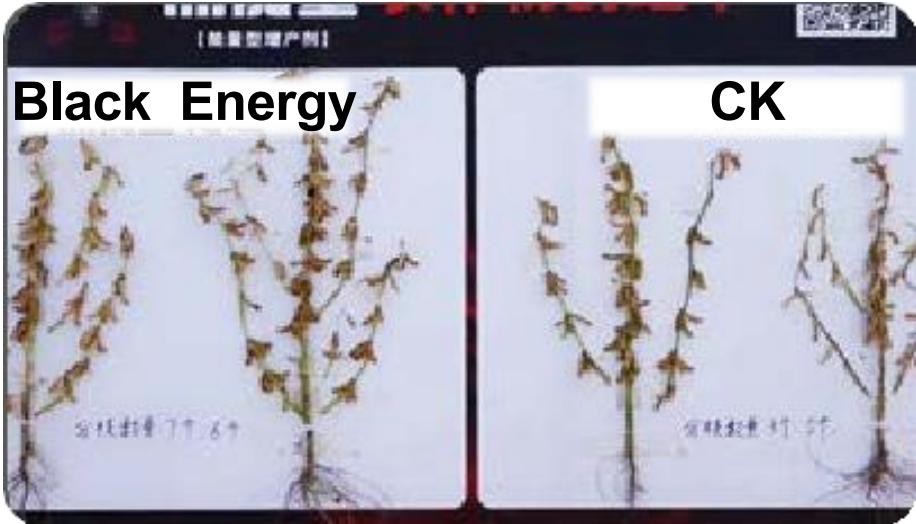
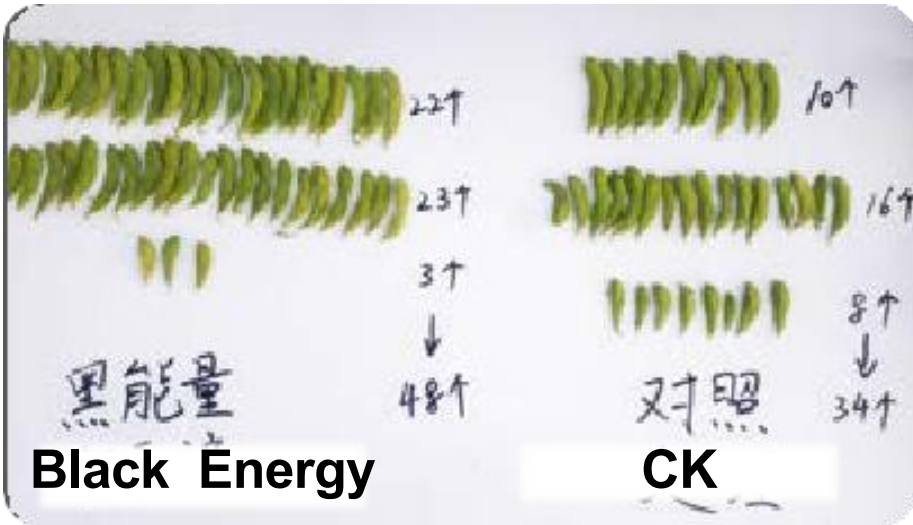
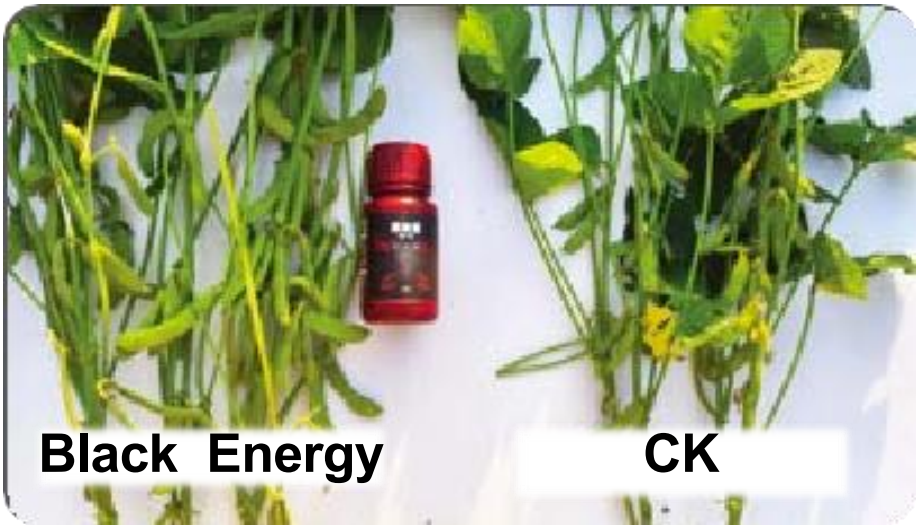
Use Period	Recommended Dosage	Effect
Seed dressing	1ml/kg seeds	Improve the emergence rate, make the seedlings uniform and strong, promote root growth and strengthen the seedlings, improve the stress resistance of the seedlings, and ensure the nutrients in the seedling stage
Branching stage	750 ml/ha	Improve stress resistance in seedling stage, enrich taproot and capillary roots, promote rhizobium formation, make stems thick and branched
Flowering and pod-setting period	750 ml/ha	Promote flower bud differentiation, long flowering time, large number of flowers, high flowering rate, large number of pods, strong disease resistance
Grain stage	750 ml/ha	The live stalks are mature, the grains are fully filled, the pods are large, the beans are full, the color is golden, and the oil yield is high

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# Black energy effect on soybean





BLACK ENERGY SOYBEAN MEASURED COMPARATIVE YIELD RESULTS TABLE

Area	Test time	Black Energy yield result/kg/ha	Comparison yield result/kg/ha	Increase production/kg/ha	Increase production rate
Academy of Agricultural Sciences Base	2024/10/15	4,072.5	3,247.5	825.0	25.40%
Sixian, Anhui	2024/10/8	3,735.0	3,075.0	660.0	21.46%
Yellow River Beach Base	2024/10/12	4,095.0	3,502.5	592.5	16.92%
Xinxiang, Henan	2024/10/10	3,390.0	2,842.5	547.5	19.26%
Academy of Agricultural Sciences Base	2024/10/13	3,465.0	3,030.0	435	14.36%



# COTTON

APPLY BLACK ENERGY 3 TIMES

## COTTON USAGE TECHNOLOGY

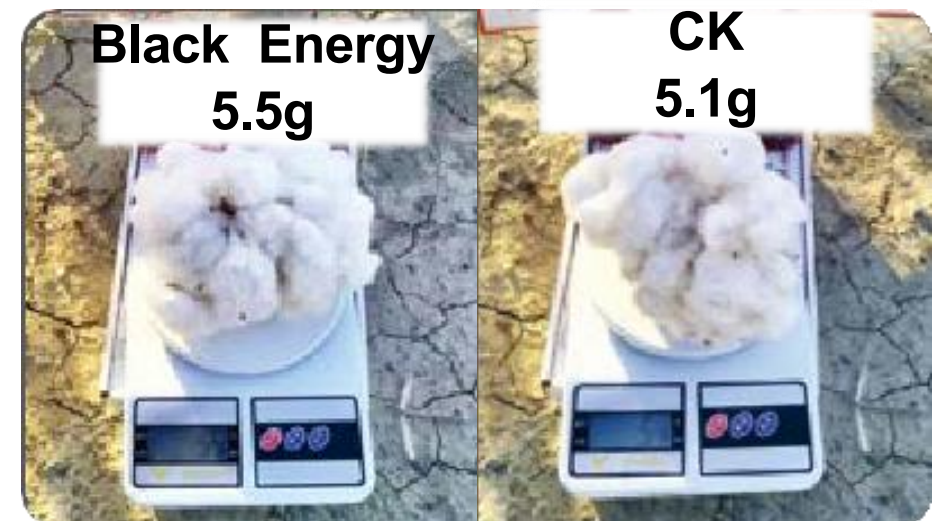
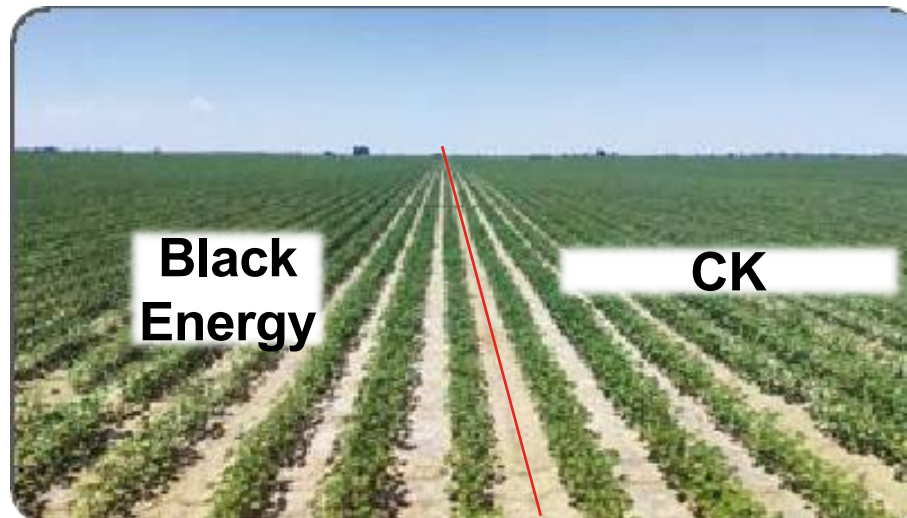
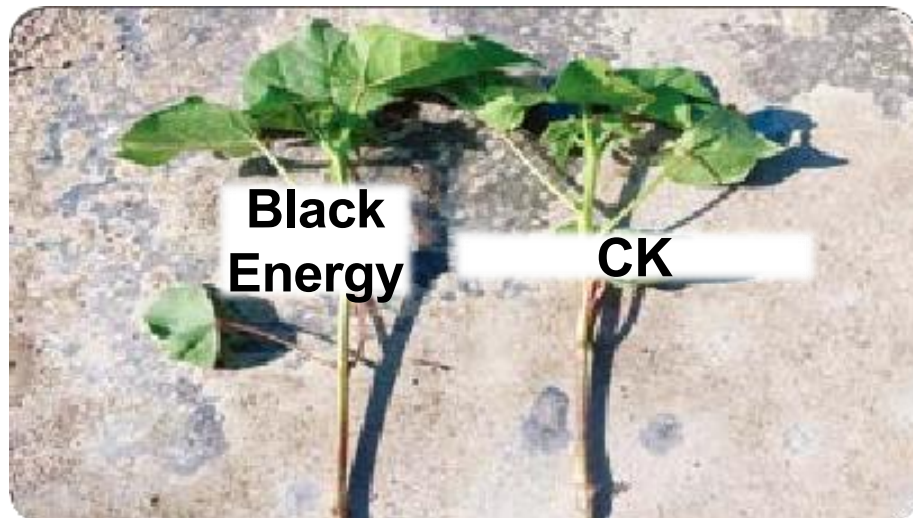
Use Period	Recommended Dosage	Effect
Seed dressing	1ml/kg seeds	Improve the emergence rate, make the seedlings uniform and strong, promote root growth and strengthen the seedlings, improve the stress resistance of the seedlings, and ensure the nutrients in the seedling stage
Early stage of budding	750 ml/ha	Promotes root growth and seedling growth, strong growth points, firm bracts, early budding, more buds, larger buds, less bud shedding
Early flowering period	750 ml/ha	The flowering period is concentrated, the buds are large and the flowers are abundant, the flowers and bells are preserved, and flower and bell drop are reduced. The leaves are thick and thick, improving stress resistance.
5-7 days after cotton topping	750 ml/ha	The plants are strong and do not age prematurely. The peaches are plentiful and large, the bolls are opened quickly, the fiber quality is improved, the boll weight is increased, and the quality and yield are increased.

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## Black energy effect on cotton





BLACK ENERGY COTTON MEASURED COMPARATIVE YIELD RESULTS TABLE

Area	Test time	Black Energy yield result/kg/ha	Comparison yield result/kg/ha	Increase production/kg/ha	Increase production rate
Shihezi, Xinjiang	2024/10/10	7,515.0	6,405.0	1,110.0	17.33%
Kashi, Xinjiang	2024/10/13	7,905.0	7,020.0	885.0	12.60%
Akesu, Xinjiang	2024/10/21	8,100.0	7,200.0	900.0	12.50%
Kuerle, Xinjiang	2024/10/13	7,800.0	6,930.0	870.0	12.55%
Akesu, Xinjiang	2024/10/25	8,190.0	7,350.0	840.0	11.14%



# GARLIC

APPLY BLACK ENERGY 3 TIMES

## GARLIC USAGE TECHNOLOGY

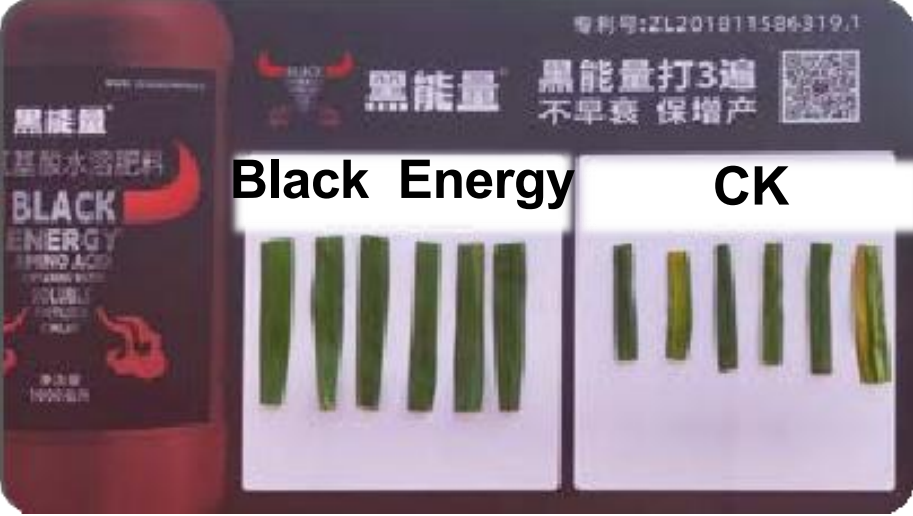
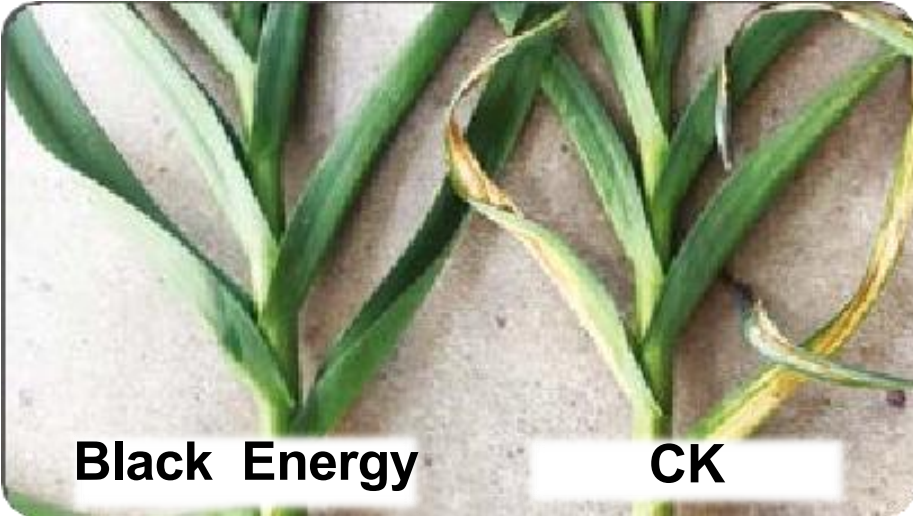
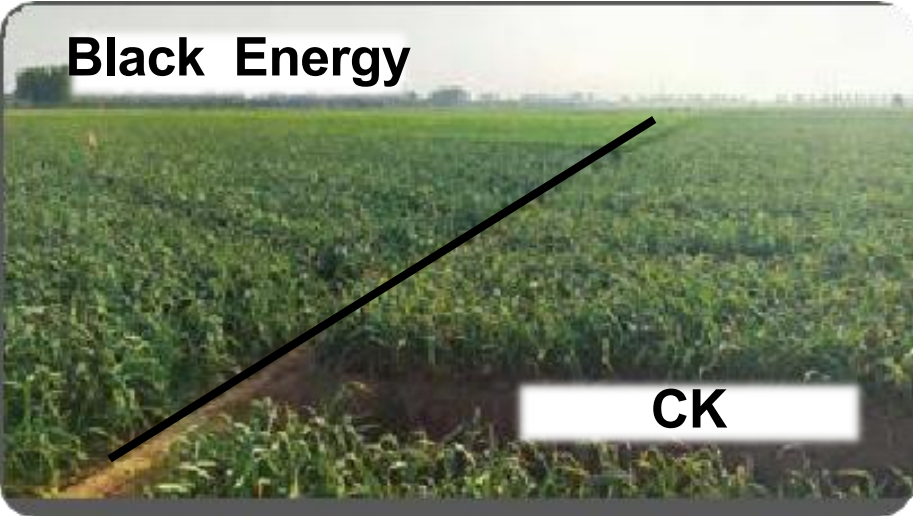
Use Period	Recommended Dosage	Effect
Seed dressing	1ml/kg seeds	Prevent seed rot, increase germination rate, root early, root fast, make seedlings uniform and strong, and improve stress resistance at the seedling stage
3-5 leaf period	750 ml/ha	Cold-resistant and low-temperature-resistant, rich taproot and capillary roots, strong and sturdy stems, broad and thick green leaves, improved stress resistance
Bulb bud differentiation stage	750 ml/ha	Rapid greening, white and strong roots, thick and hard stems, broad and thick leaves, promoting photosynthesis and improving stress resistance
Bulb expansion period	750 ml/ha	Enrich capillary roots, promote photosynthesis, promote the formation of garlic cloves and garlic stalks, early and uniform bolting, and large garlic heads

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Black energy effect on garlic





BLACK ENERGY GARLIC MEASURED COMPARATIVE YIELD RESULTS TABLE

Area	Test time	Black Energy yield result/kg/ha	Comparison yield result/kg/ha	Increase production/kg/ha	Increase production rate
Qixian, Henan	2024/5/17	20,625.0	17,190.0	3,435.0	19.98%
Xuzhou, Jiangsu	2024/5/12	18,900.0	15,810.0	3,090.0	19.54%
Dali, Yunnan	2024/4/14	18,495.0	15,030.0	3,465.0	23.05%
Weishi, Henan	2024/5/20	21,135.0	17,985.0	3,150.0	17.51%
Zhongmu, Henan	2024/5/10	19,410.0	16,605.0	2,805.0	16.89%



# DECLARATION

SERVING MILLIONS OF FARMERS

STRIVING TO INCREASE YIELD

ENSURING FOOD SECURITY