

Cosmic Agricultural Films Revolutionizing Agriculture

Our company, a renowned enterprise, specializes in advanced light-converting materials with extensive research experience. We are recognized by the Chinese Academy of Sciences as a pioneer in academician-led research. Our unwavering dedication to high-efficiency light-converting powders has spanned many years.

We are at the forefront of the industry with our cutting-edge, Cosmic agricultural film. This groundbreaking product incorporates our patented light-converting materials into standard greenhouse films, effectively elevating their performance. The film's innovative technology converts harmful ultraviolet (UV) and inefficient green light into essential blue and red light, promoting plant growth by providing increased nutrients. The outcome is healthier and more robust plant development.

Plant growth fundamentally relies on photosynthesis, a process where chloroplasts utilize light and heat energy to catalyze various nutrients from the soil, supplying the necessary energy for growth. This photosynthesis, facilitated by chlorophyll, predominantly absorbs blue and red light from sunlight to produce vital nutrients. Inefficient green and yellow light absorption is why leaves appear green to us. Additionally, ultraviolet light, invisible to humans, is detrimental to plants.

Our unique Cosmic agricultural film incorporates our proprietary materials, enabling the conversion of harmful UV light and non-essential green and yellow light into indispensable blue and red light. This enhances the photosynthetic capacity of chlorophyll, stimulating plant growth. Red light promotes fruit and stem development, while blue light supports leaf and root growth, resulting in fuller fruits, sturdier stems, lush leaves, and robust root systems.

Extensive planting experiments conducted in agricultural greenhouses by the Inner Mongolia Institute of Metallurgy and Biological Research have unveiled six distinct advantages of our light-converting film compared to conventional counterparts:

1. **Enhanced Light and Temperature:** During winter, our film significantly increases light intensity and transmittance within greenhouses, raising average temperatures by 3-5 degrees Celsius. In summer, it reduces greenhouse temperatures by 7-8 degrees Celsius. These conditions foster taller, sturdier plant growth, allowing crops to reach the market 20 to 30 days earlier.
2. **Yield Boost:** Plants in Cosmic film greenhouses grow taller, sturdier, and exhibit a significantly higher fruit-setting rate, leading to yield increases ranging from 1.6-2.5 times, particularly for fruit-bearing plants.
3. **Disease Resistance:** Reduced UV transmittance within the film greenhouse, coupled with robust plant growth, diminishes disease occurrence by over 80%, including white spot disease, leaf blight, and wilt disease.
4. **Quality Enhancement:** Fruits grown under the influence of our film exhibit higher vitamin C and sugar content, surpassing those from conventional greenhouses. The film also improves fruit appearance and taste by increasing the proportion of large fruits, reducing small fruits, and minimizing deformities.

5. Triple Protection: Our film absorbs UV rays and prevents their transmission, combating UV damage that often plagues agricultural films. Experiments confirm its resistance to aging. Additionally, our film incorporates new materials and processes during production to ensure resistance against dripping, fogging, and aging.
6. Overcast Weather Insulation: Even in overcast and rainy weather, our film enables plant growth by converting ultraviolet light into essential red and blue light, ensuring continuous growth despite limited sunlight.

We spearhead agricultural innovation with our Cosmic agricultural film. Our unwavering commitment to enhancing plant growth, increasing yields, and improving crop quality is validated through extensive research and real-world testing, positioning our product as a transformative force in agriculture.