

Soil Solarization/Low tunnel Film

Agrifirst Soil Solarization Film — transparent PE film for solar soil sterilization. Kills pathogens, nematodes, weed seeds without chemicals. Also for low tunnels.



3x better

pathogen control with heat trapping

2x enhanced

durability with UV stabilization

4x more

effective with anti-drip technology

ABOUT

Soil Solarization & Low Tunnel Film — Chemical-Free Soil Sterilization Using Solar Heat

Agrifirst Soil Solarization Film is a transparent polyethylene film used for chemical-free soil sterilization through solar heating. When laid tightly over moist soil during hot summer months, this film traps solar radiation, raising soil temperatures to 50–60°C — killing soil-borne pathogens, nematodes, weed seeds, and harmful insects without any chemical inputs. Also doubles as a low tunnel cover for off-season crop protection.

DESCRIPTION

Agrifirst Soil Solarization Film is a transparent polyethylene film engineered for chemical-free soil sterilization using solar energy. This proven technique — called soil solarization — is the most effective non-chemical method for controlling soil-borne diseases, nematodes, weed seeds, and harmful soil insects.

How Soil Solarization Works

The film is laid tightly over pre-irrigated soil during the hottest months (April–June in India). Solar radiation passes through the transparent film and heats the soil. The film traps this heat (greenhouse effect), raising soil temperatures to 50–60°C at 15cm depth. At these temperatures, most harmful organisms are killed within 4–6 weeks — including Fusarium, Pythium, nematodes, and weed seeds.

Key Benefits

- **Chemical-Free** — Zero pesticide residue, safe for organic farming certification
- **Broad-Spectrum Control** — Kills fungi, bacteria, nematodes, insect larvae, and weed seeds simultaneously
- **Improved Soil Health** — Releases bound nutrients and promotes beneficial microorganism recovery
- **Dual Use** — Same film works as low tunnel cover for winter crop protection
- **Cost-Effective** — Dramatically cheaper than chemical fumigation with methyl bromide or other chemicals

Technical Specifications

Material	LDPE — transparent, UV stabilized
Thickness	25 / 40 / 50 micron
Color	Transparent (clear)
Width	1.0m, 1.5m, 2.0m, 3.0m
Length	400m / 500m rolls
Treatment Duration	4–6 weeks during hot summer
Applications	Soil solarization, low tunnel cover, nursery protection



GALLERY



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