

IPPS

INTERNATIONAL
PLANT PROPAGATORS'
SOCIETY

SHARING PLANT PRODUCTION KNOWLEDGE

19th ANNUAL CONFERENCE

IPPS Southern Africa Region

Greenhouses maintenance and installation

Thursday 3 March 2016, Lambert's Bay, West Coast

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 Covering the world with care

Topics of this presentation

- Introduction
- 5 layers technology
- Greenhouse films properties
- Greenhouse maintenance and installation
- Summary



Plastic is not just an umbrella as it was before it is much more

5
LAYER
FILM



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Introduction

- Company profile.
- Activity on over 65 countries all over the world.
- Ginegar cooperates with universities and leading farmers.
- R&D department and laboratory services in Israel and abroad.



5
LAYER
FILM

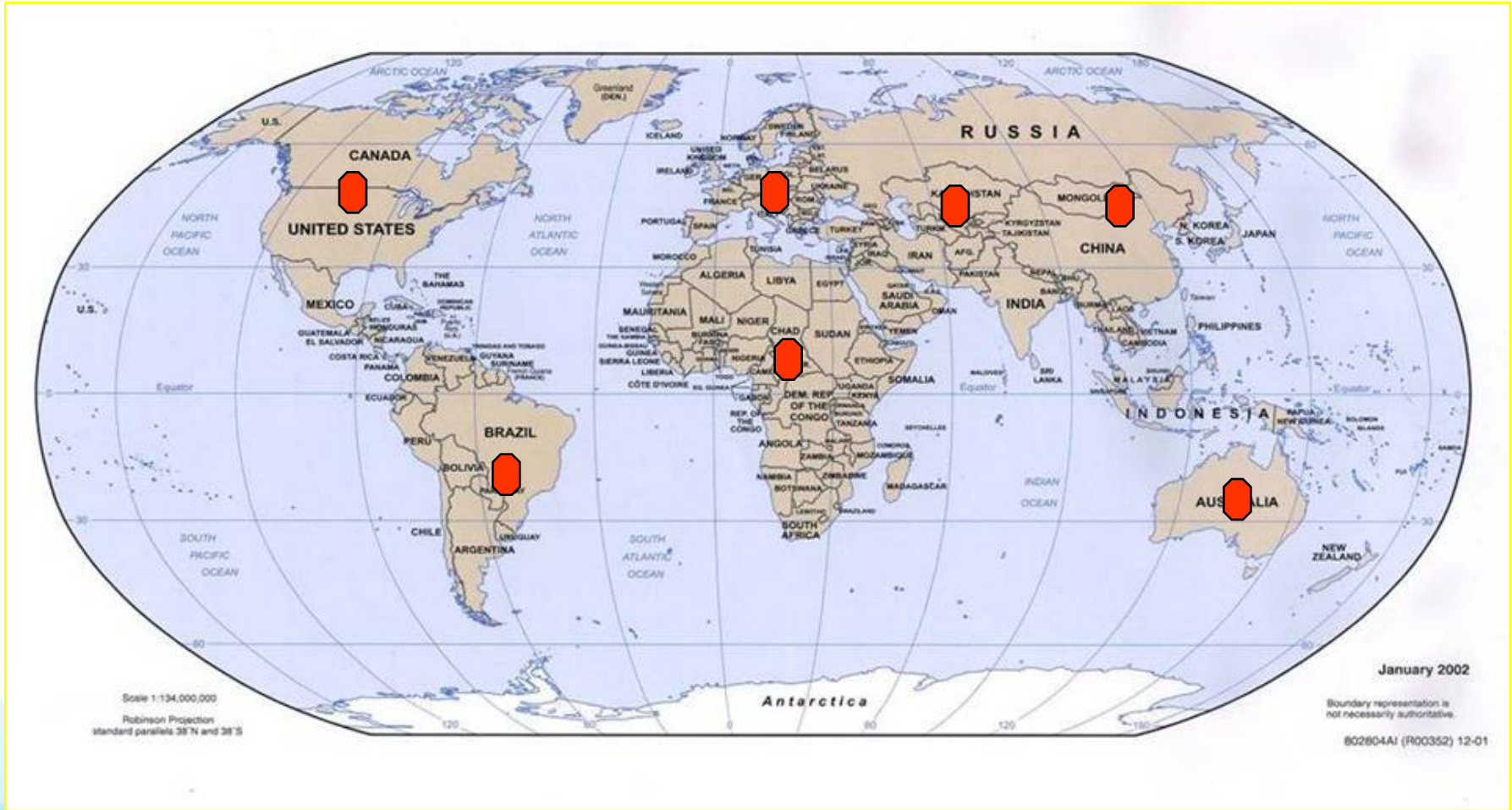


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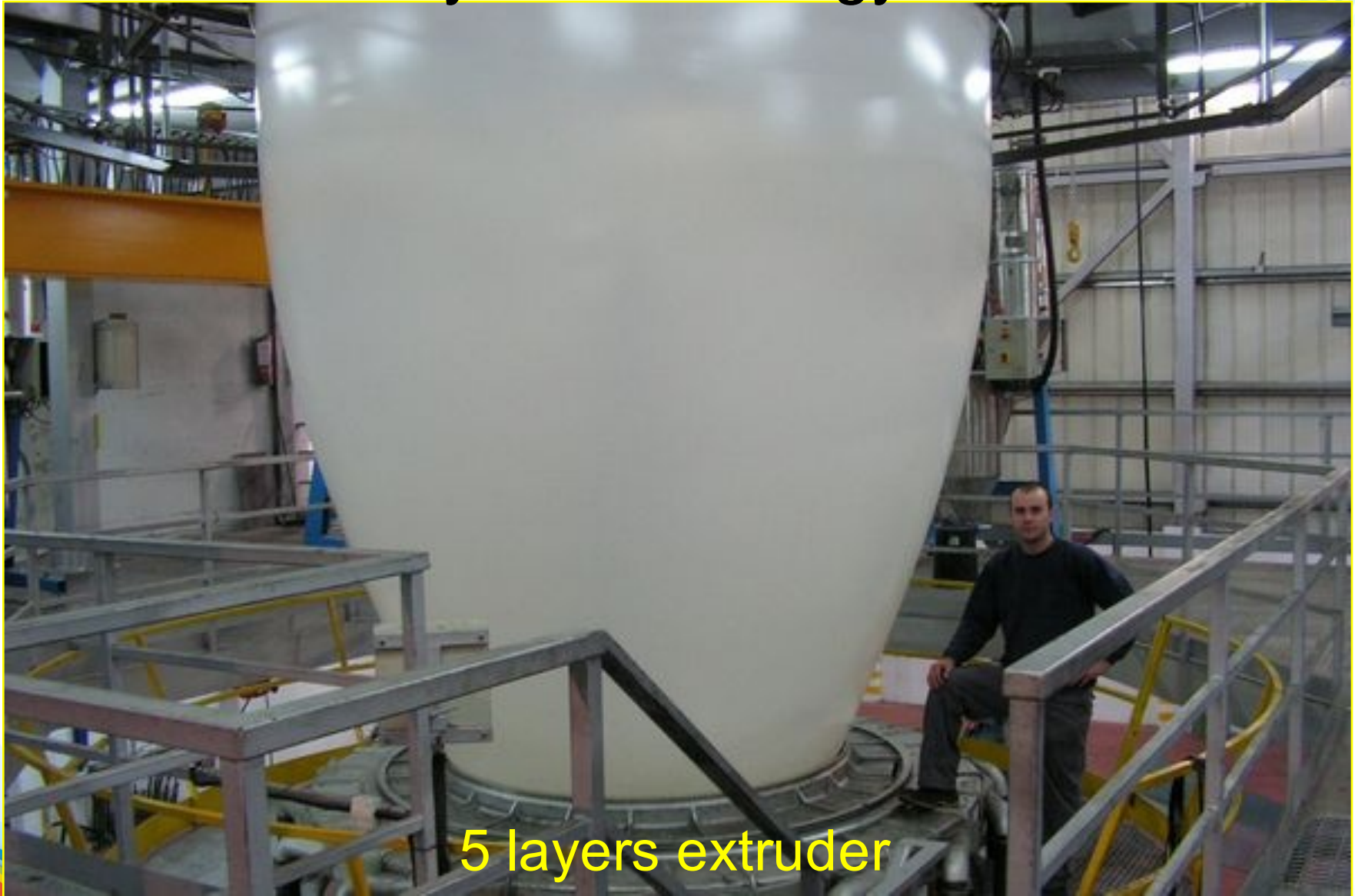
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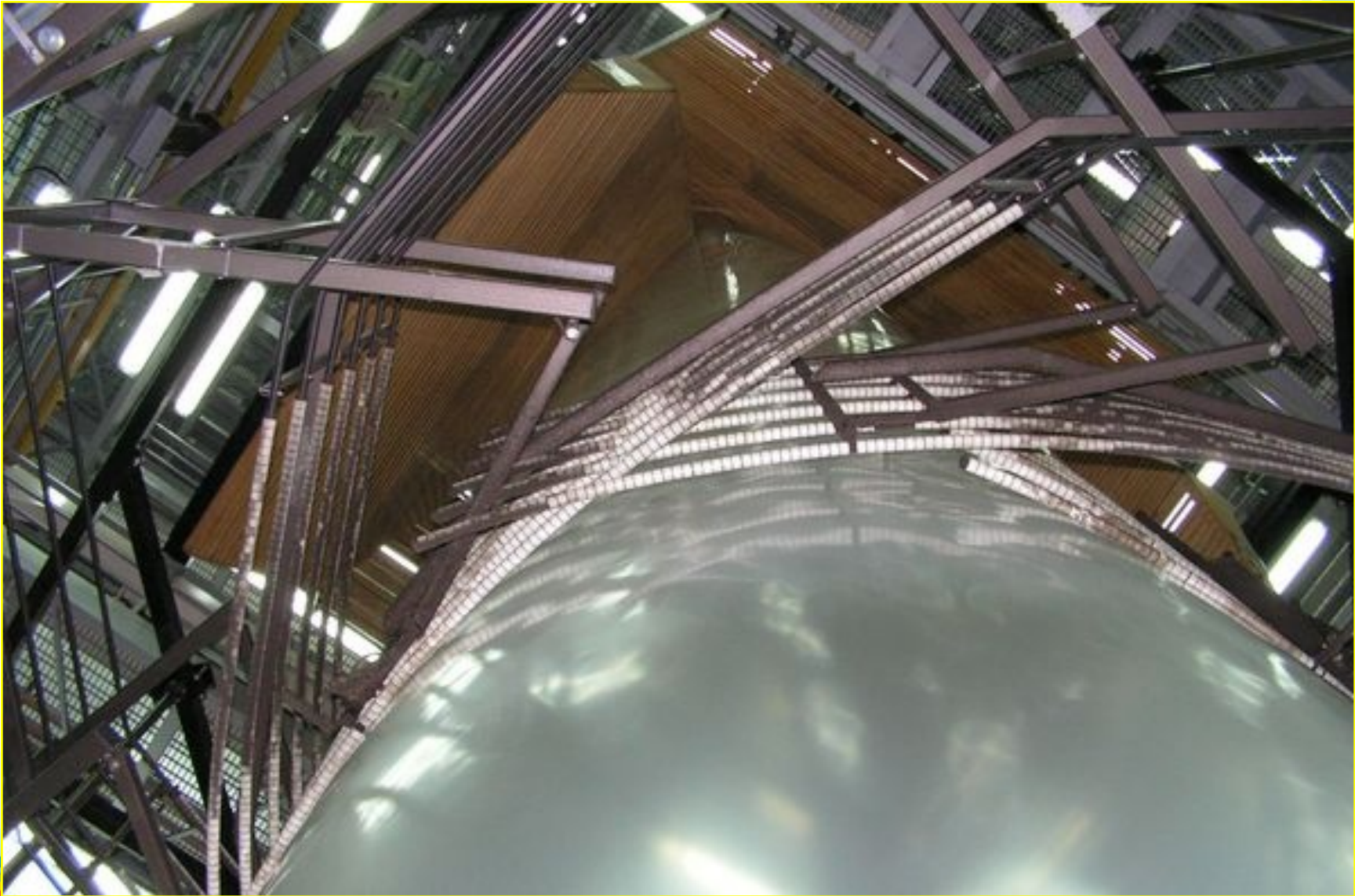
Our World-Wide Network Of Markets



5 layers technology



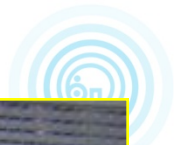
5 layers extruder



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anti dust

mechanical strength

IR barrier

other materials

Anti Drip

layers

5

3

Greenhouse films properties

Anti drip

Anti mist

Anti dust

Blocking UV radiation

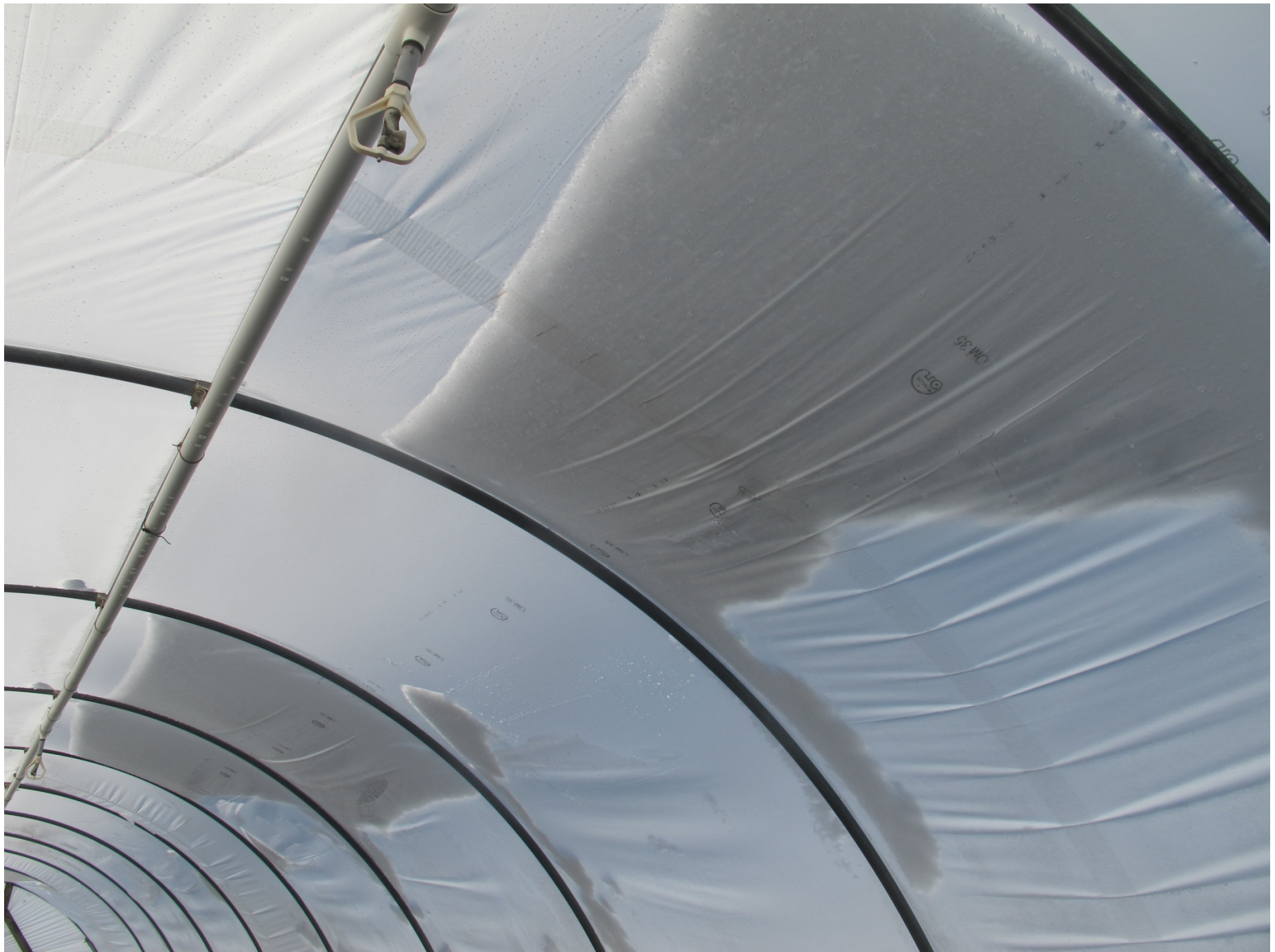
Resistance to breakdown

Resistance to tear

**Film life expectancy- stabilizers
package**

Light transparency, direct/diff

Thermicity (IR blocking)

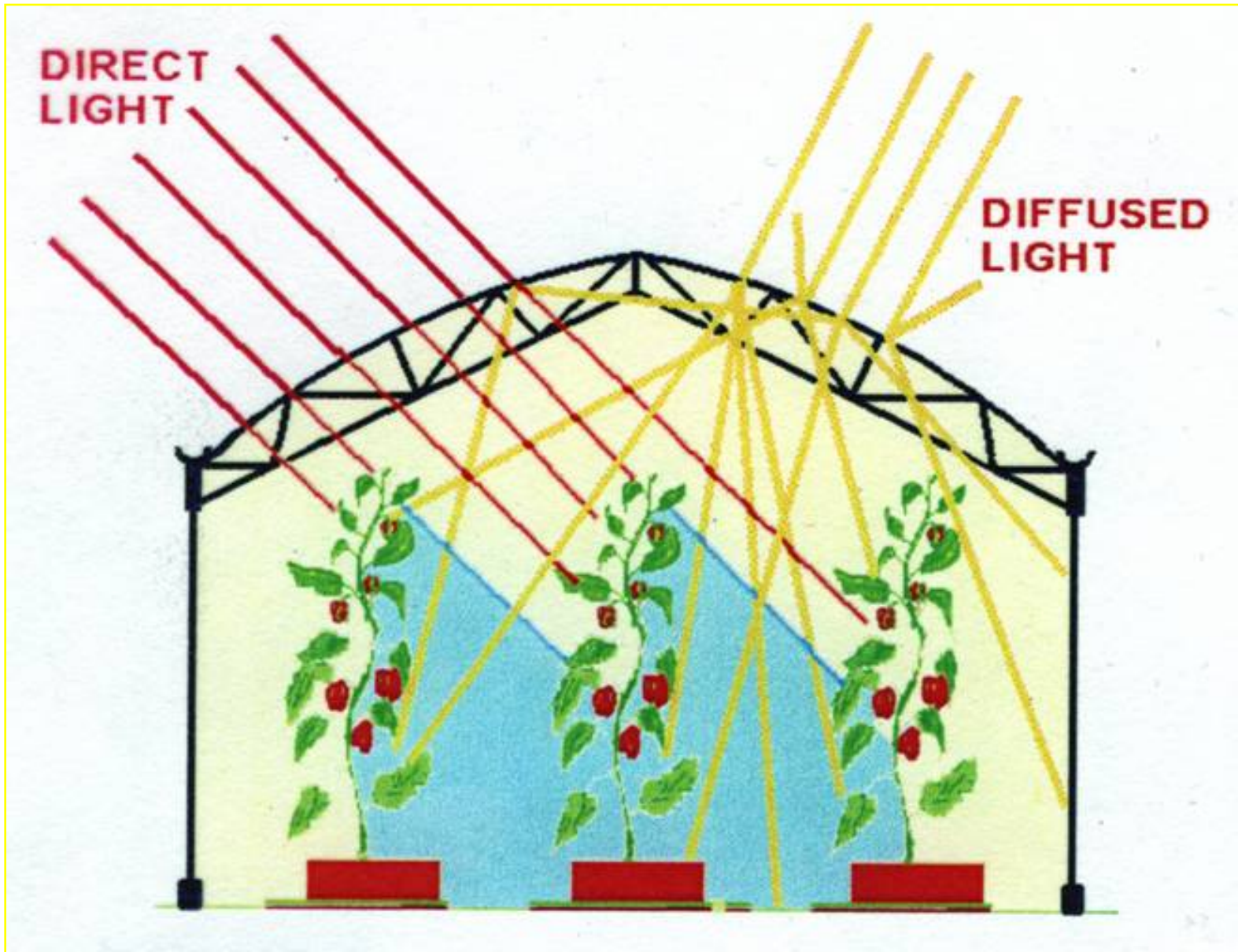






Anti Dust performance

Direct/ diffused light





Shadow under a clear film

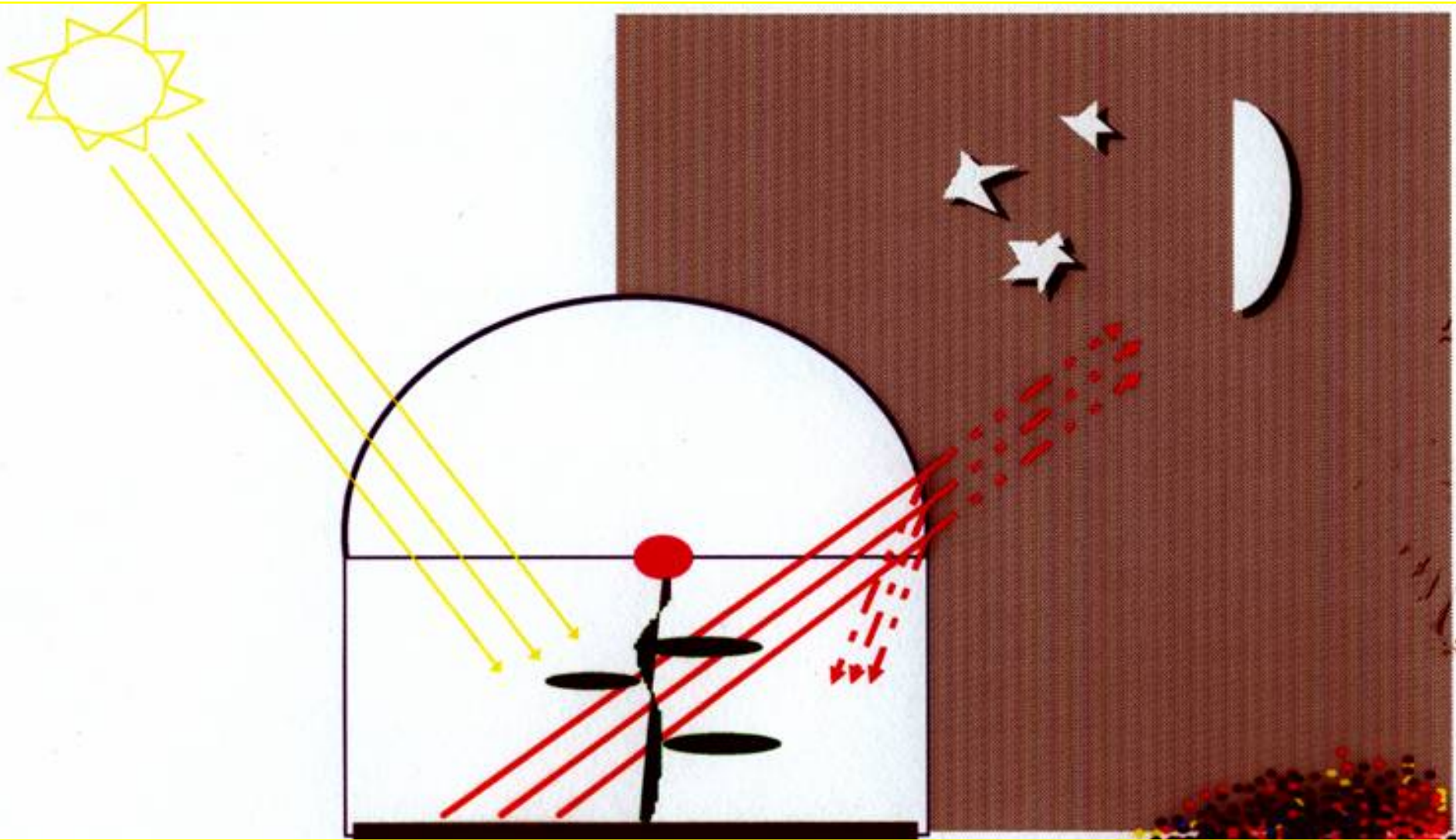


Shadow under a diffused film

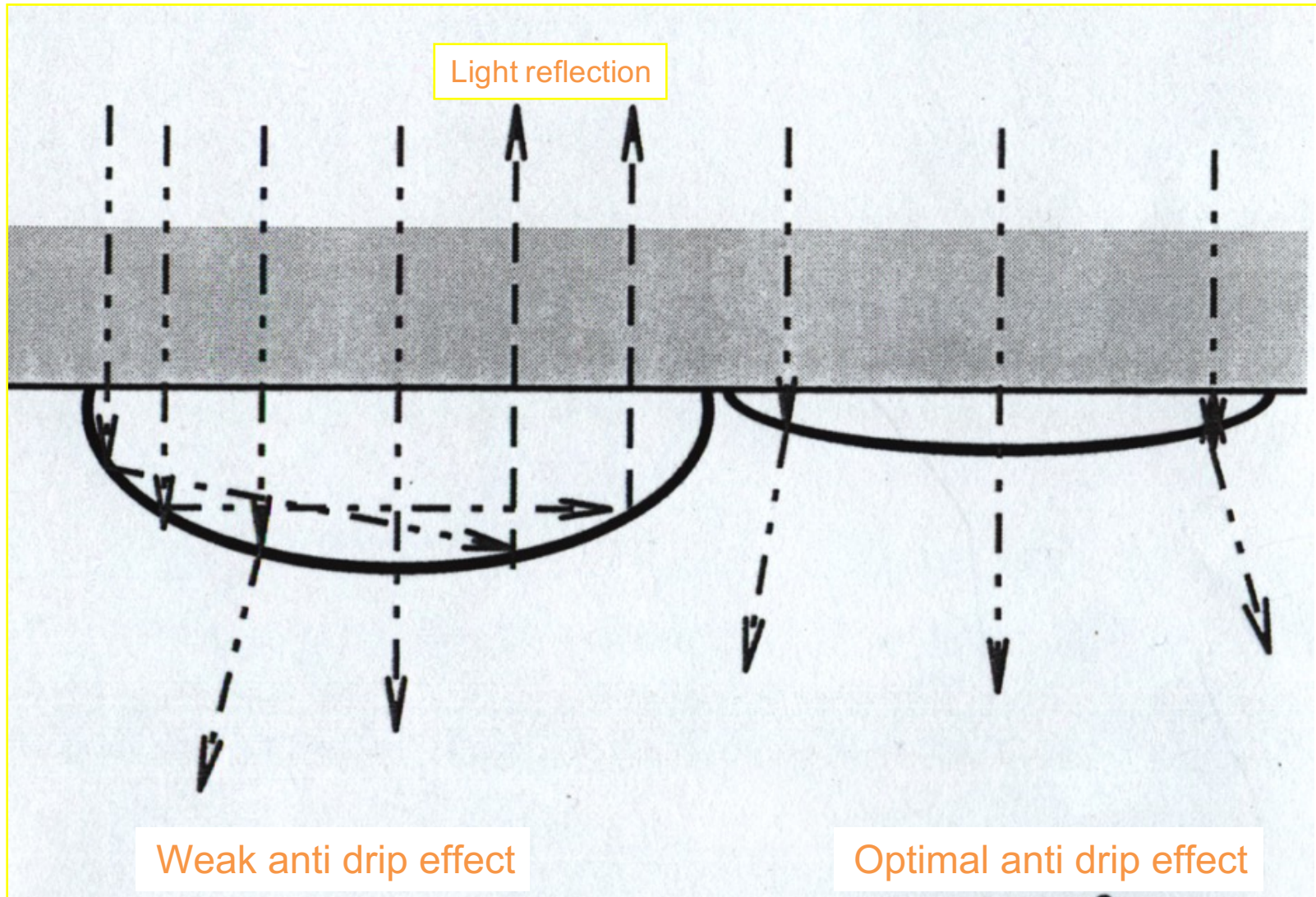




Thermicity (IR blocking)



Anti drip effect









Antidrip film



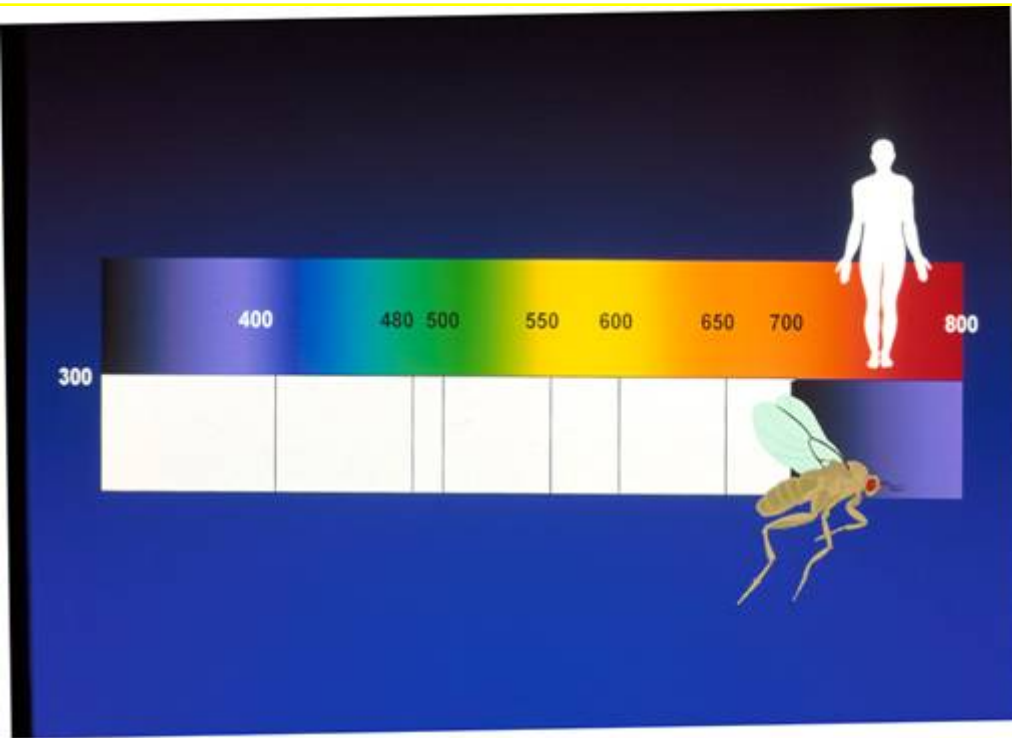
Film with anti mist additive

Film without anti mist additive



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Blocking UV radiation- The Insect Field Of Vision



Insects cannot see red but they are able to see U V light and need it for their spatial orientation

Blocking UV radiation- AV film



Film without UV blocking



UV blocking film



Without UV blocking



UV blocking

Discoloration (blackening) of petals of red roses is a result of the exposure to U V radiation and low temperatures



Grown under a film that blocks UV radiation

Grown under a film that does not block UV radiation



UV radiation and flowers pigmentation



S. S. AV blocks UV radiation

S. S. nectarine- does not block UV radiation

Greenhouse maintenance and installation issues





















MIL-302
4K1452

PARAMOUNT

**ACRYLIC
PVA**

inside / outside EXTRA THICK

WHITE
MIL-302









Use adhesive type suitable for polyethylene film



















26.05.2009



During transition between seasons, re-stretch the film if necessary



In order to improve the light transmission, periodical rinsing of the film is recommended.
Use a sponge or a cloth





According to our experience film degradation start on contact between the frame and the film- the solution is to paint



According to our experience film degradation starts on contact between frame and the film- the solution is to paint



According to our experience film degradation start on contact between the frame and the film- the solution is to paint the frame and the film



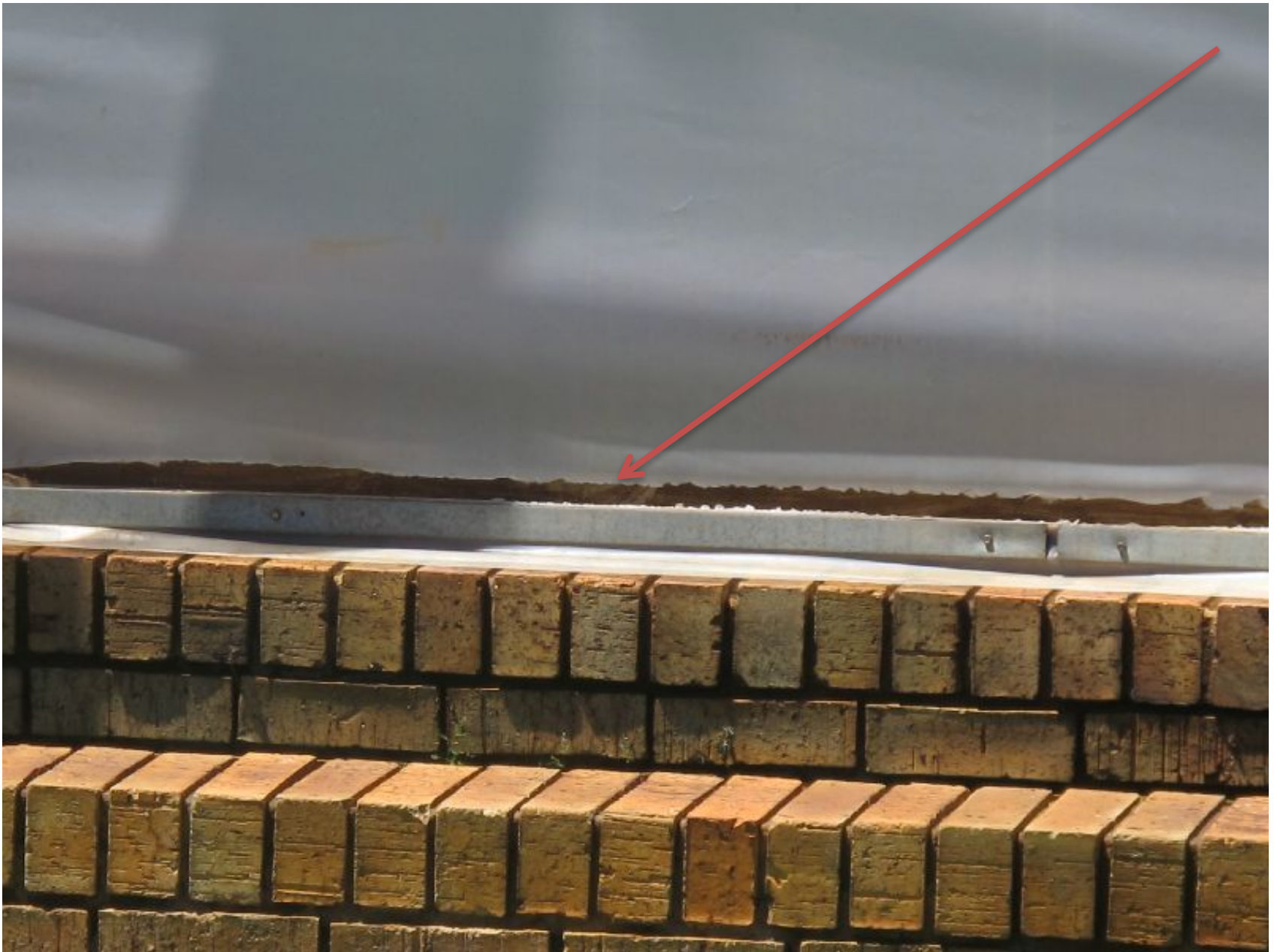
Acording to our experience film degradation start on contact between frame and the film- the solution is to paint
























UV radiation premature degradation, picture taken on June, 8, 2012



UV radiation premature degradation, picture taken on July, 6, 2012

ms
ABILIZED
W GH

**AT.Films**
NOT UV STABILIZED
8 SEP 12 W GH



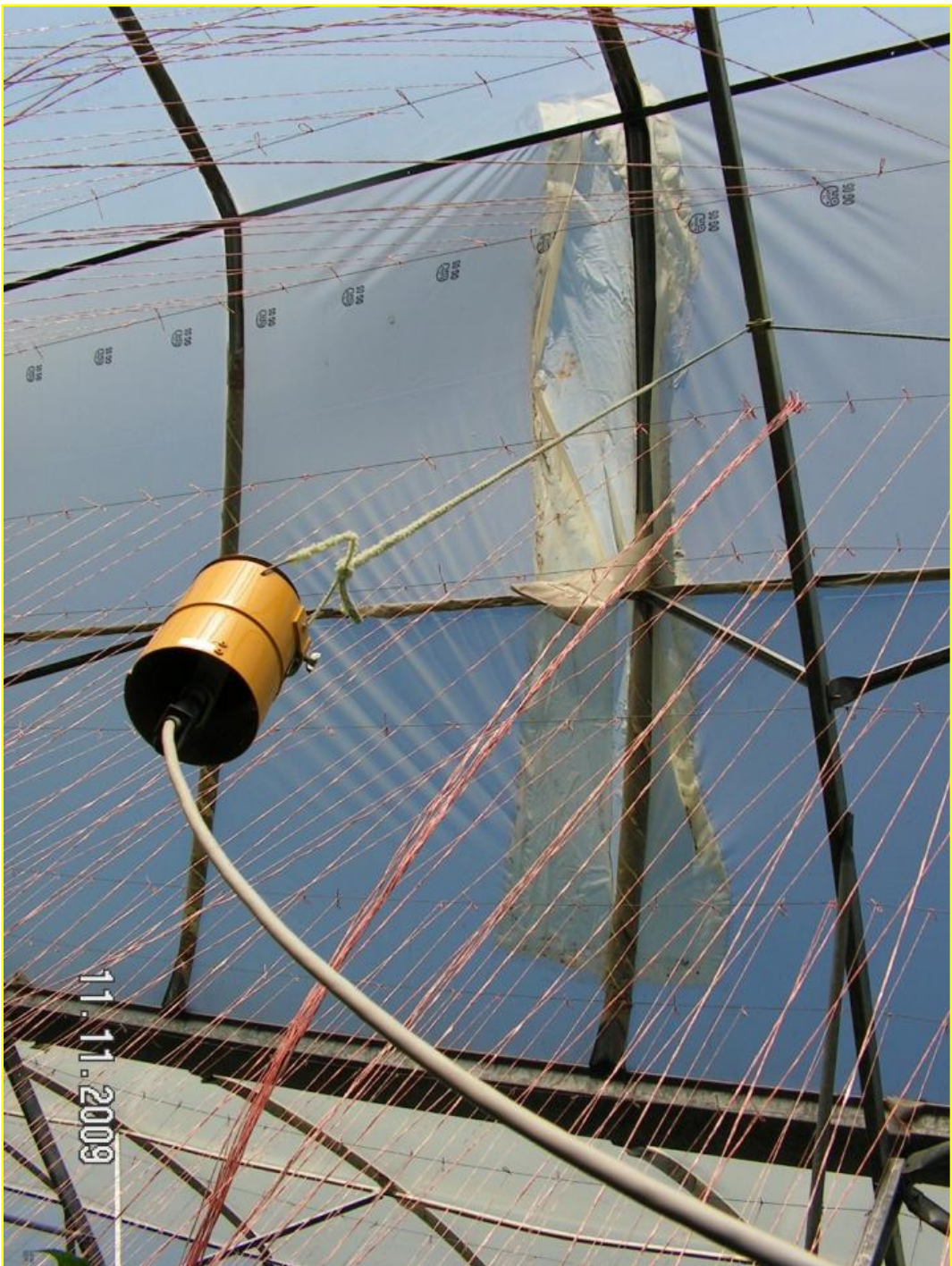


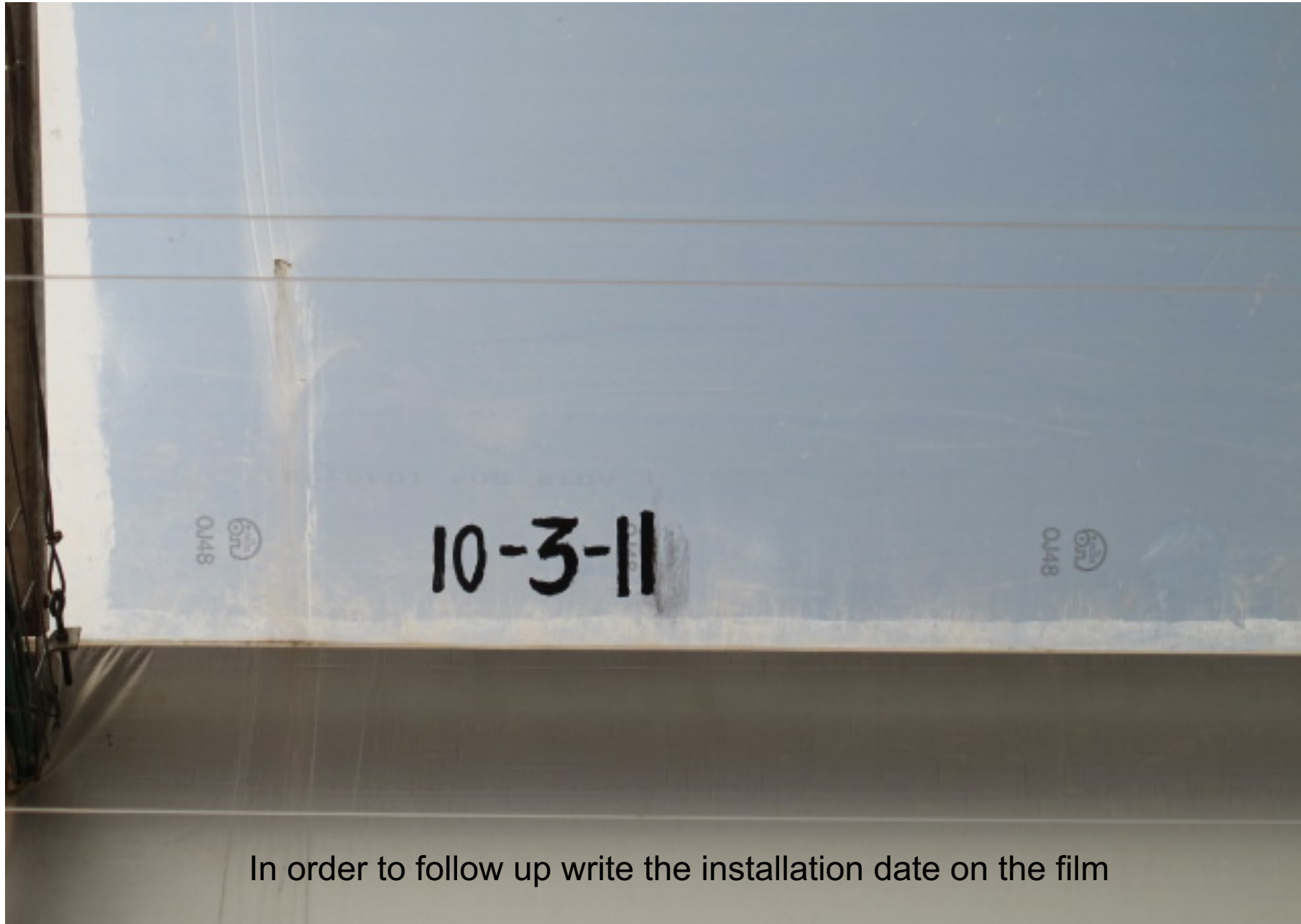


Film degradation- direct contact polyethylene and PVC



Film degradation- sulphur evaporation

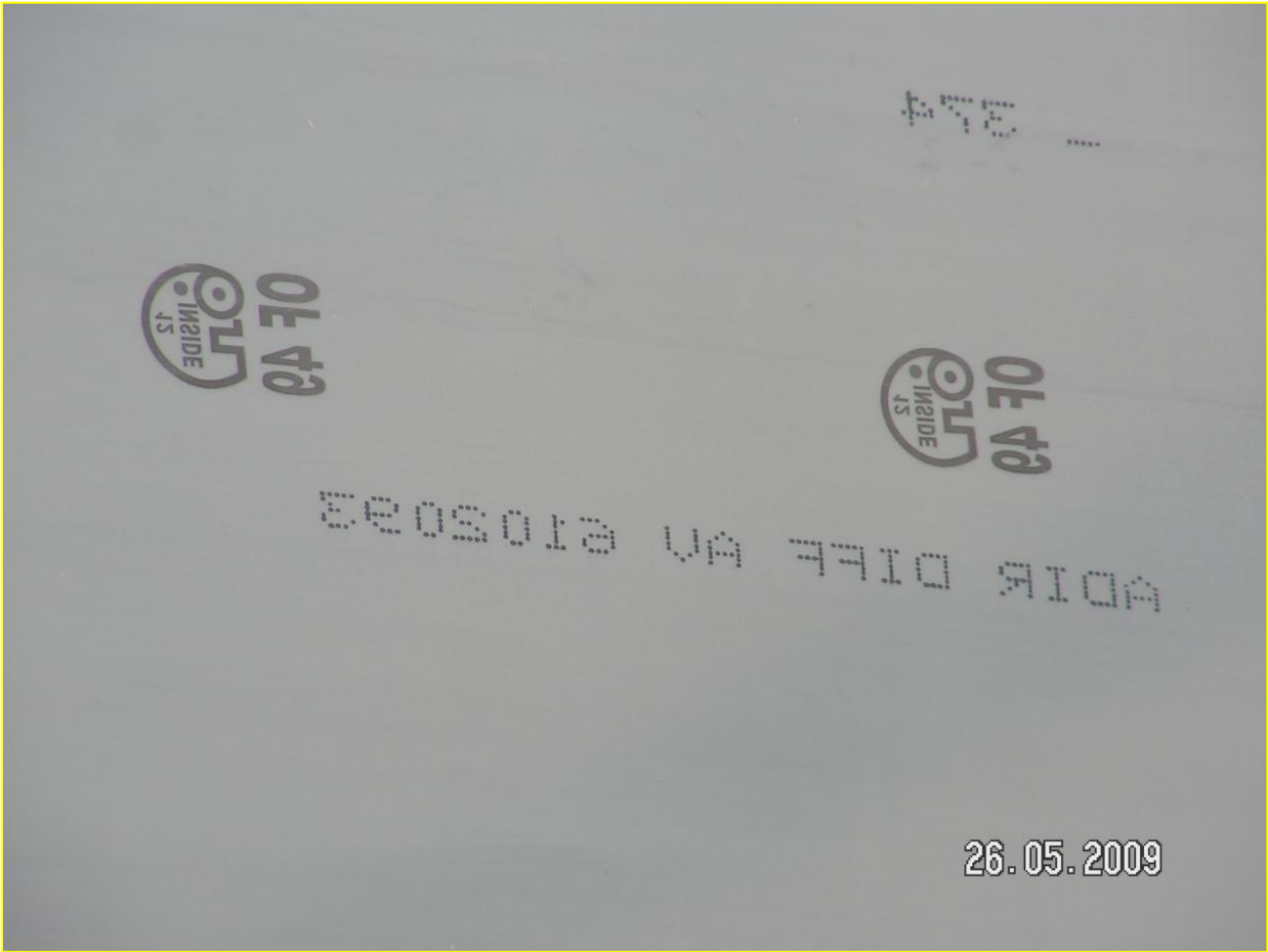




In order to follow up write the installation date on the film



The printed logo on the film should be logically readable while standing inside the greenhouse



A film installed ups and down

12 11:54

0132



THE GREAT OUTDOORS

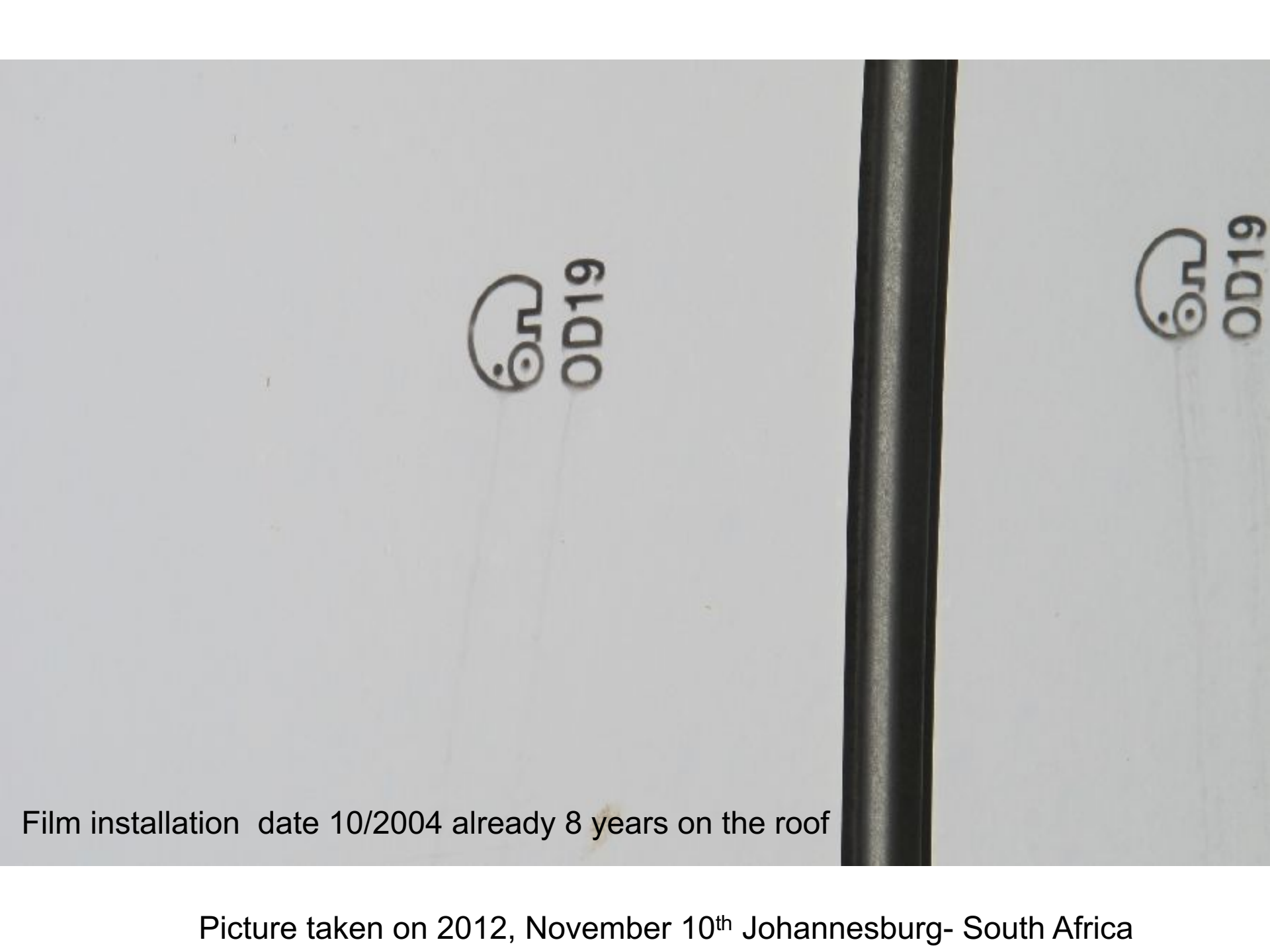
A film installed ups and down



A film installed ups and down



Picture taken on November 10th 2012 Johannesburg- South Africa



OD19

OD19

Film installation date 10/2004 already 8 years on the roof

Picture taken on 2012, November 10th Johannesburg- South Africa

Summary

Choose the right film properties

In order to prevent early premature film degradation choose the right stabilization package

Good structure preparation and good installation will contribute for longer life span of the film



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Thank you for your attention and patience



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