

GREENHOUSE USE AND MAINTENANCE

KEEPING THE BEST CLIMATE



EUROPROGRESS 



GREENHOUSE CORRECT MAINTENANCE

End users need to observe some maintenance precautions in order to keep structures' original characteristics over time. If carried out with a certain periodicity, these operations make it possible to preserve and to extend greenhouses duration.

The correct and good use of greenhouses can be obtained by following a few short rules, applicable both to their structural elements and to sheeting films.



STRUCTURE MAINTENANCE

1. CORROSION PREVENTION

2. CHECKS ON ELECTRICAL EQUIPMENTS

3. MAINTENANCE ON MOVING PARTS

4. REGULAR CHECKS & END WORKS PRECAUTIONS

1. Corrosion prevention

- Remove accumulated debris (leaves, branches, sand, etc.) especially from the gutters. If not removed, these residues could fix humidity and foster biodegradation;
- Avoid to drain and to treat crops with aggressive chemical solutions, as they can lead to the formation of highly corrosive wet areas.
- It is better to protect the exposed parts of the structure with bituminous products;
- At least every two years, it is advisable to check whether the tar applied at the end of the assembly is still present on the pillars of the structure. If not, apply it again in order to avoid corrosive effects.



2. Checks on electrical equipments

- Before each electrical start-up, check the connections and make sure there are no leaks on the electrical panels or on the probes inside the greenhouse;
- All probes must be kept very clean. Poor maintenance can cause window closing during the hot and dry season;
- Every now and then, dust the panels and check the tightness of terminals;
- Check that the wind vane of the anemometer turns freely and that it is in non-turbulent areas;
- Verify the correct tension of the film and its homogeneity of double walls during the inflation phase;
- Perform regular checks (annually) on the shading system assemblies;
- It is advisable to avoid electrical connection of the wind and rain probes near the voltage cables, as with high temperatures magnetic fields can occur and lead to unjustified alarms.

Maintenance frequency

The maintenance of electrical panels and control units must be carried out at first after 3 months of operation, then once a year.

Seasonally check the duration of inflation so that to adapt to different expansion temperatures (for example, during the summer period the inflation will require less pressure than in winter).

All work on the electric parts must be carried out without tension.

3. Maintenance of moving parts

- Check the level of tightness of the toothed pinions on the transmission tubes and adjust the motor-driven limit switches;
- Check that the rolling pipe is still straight without significant waves forming, otherwise unroll the pipe and fix it again using appropriate clips;
- In case of excessive noise during the windows opening phase, grease the teeth of the racks with special spray greases, so that to avoid the formation of dust;
- Lubricate the carriages of the sliding door guides;
- For an optimal closing, it is good practice to check the register of the racks on windows' ledges, when reaching the limit switch;
- In general, carry out regular checks on all moving parts.



4. Regular checks & end works precautions



Verify that all structural materials are installed correctly. Specifically, it is advisable to make sure that:

- Bolts are properly tightened
- Sheeting plastic films have the correct extension;
- Whether there are iron or polyester wires supporting the sheeting, it is advisable to check those elements are correctly fastened and sufficiently tightened.

At the end of the construction works, remove the shavings of the self-drilling screws.

Maintenance frequency

General checks and regular verifications on the greenhouse moving parts should be carried out annually.



**1. CORRECT USE OF FILMS DURING THE
INSTALLATION PHASE**

2. SHEETING FILMS SAFEGUARD

MAINTENANCE ON SHEETING FILMS

1. Correct use of films during the installation phase

- Store the film horizontally away from heat and light, and leave it in the original packaging. In general, after the delivery, it is good practice to protect all the material from rain and sunlight;
- Make sure the film was assembled no later than 6 months after the delivery;
- Perform the installation in good weather (temperature between 10 and 25 ° C) and in the absence of wind;
- Respect the assembly direction (Internal / External) for specific treatments that are carried out in the various layers (anti-condensation, anti-dust);
- Stretch the film in a sufficient way so that to avoid shaking;
- The film must not come into contact with opaque black objects (black films, irrigation tubes) and / or plastic materials that can degrade the molecules of the fabric in question.



2. Sheeting films safeguard

- Check the tension of the film so that to avoid splashing and water deposits and verify the register of the inflation timer;
- In case specific shading products have been used, utilize water or special solvents for cleaning
- Avoid treatments with sulfur and calcium-based products on plastic films as these elements increase their degradation;
- Coat the edges of the profiles with specific products, so that to lengthen the stabilization of the sheets and reduce the amount of radiation.

Maintenance frequency

These checks must be carried out at the seasonal level.



WHAT TO DO IN CASE OF WIND



SAFETY OPERATIONS

In case of strong wind (when it reaches 25/30 km / h) it is absolutely necessary to close the openings against the wind and any other type of openings such as windows, doors, skylights. This will allow for a better greenhouse resistance.

CLOSING AND OPENING COMMANDS

For manual opening commands, the closing operations will have to be performed manually, while in the case of opening commands equipped with a wind speed detection anemometer, closing will take place automatically.

However, it is always advisable to check from time to time that the safety equipment is working and that it has the correct settings.



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