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# *WINTER 2022/23:*
## Prepare to weather the energy crisis

**With checklists!**

GARTENBAU VERSICHERUNG

# *CONTENTS*





# *1. WELL INFORMED* and ready to go!

How to prepare your business for winter.

Business owners are used to making decisions. But during the energy crisis, these now have unusually far-reaching consequences:

- Can I still produce economically with these high costs?
- Should I close down parts of my operation?
- And how do I react to a sudden or announced disruption in my electricity or gas supply?

In addition to the economic impact, many decisions also have implications for the **safety of your greenhouses and business operations**. Some even affect your insurance coverage. As your partner and service provider, we have therefore put together our **most important recommendations and information** on the energy crisis for you in this article on operational safety.

**Because we don't know exactly what the future will bring, but we can still prepare for it as well as possible.**

Incidentally, that is precisely what insurance is all about, and it is the first step to effective risk management.

# *2. FROM A HEATED GREENHOUSE* to an unheated greenhouse

Why a planned shutdown needs to be well prepared.

Most production greenhouses are designed as heated greenhouses. **Structural engineers** and **actuaries** therefore include heating in their calculations to keep costs down for the businesses.

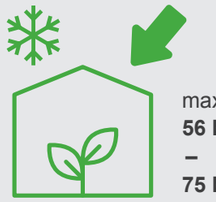
If heated greenhouses are simply no longer heated, this makes the situation **doubly dangerous** during periods of ice and snow: Roofs can collapse due to the pressure and are at the same time not even insured. Freezing liquids can also cause considerable damage.

As a rule, damage can be avoided by taking **preventive measures** in good time. Insurance coverage is also maintained if businesses take reasonable measures.

## HEATING IS INCLUDED WHEN CALCULATING THE STATICS OF GREENHOUSES!

max. load:
**25 kg/m²**

**Heated greenhouse**



max. load:
**56 kg/m²**
**–**
**75 kg/m²**

**Unheated greenhouse**

**Rule of thumb:**
25 kg/m² = 20 cm fresh snow = 10 cm wet snow = 3 cm ice

➡ **Fresh snow of 21 cm or more can cause an unheated greenhouse to collapse! This also applies if the greenhouse is kept “frost-free”!**

## PREVENTION AND ACUTE CASES: GUIDELINES

The **checklists** in the appendix provide you with a guide to the expected measures. They distinguish between preventive measures that need to be taken at the beginning of the cold season or of the shutdown and emergency measures, e.g., when snow starts to fall. **Preventive** measures include protecting liquids or systems containing water from freezing, having materials ready for use in the event of an emergency, and checking emergency equipment. In **emergency situations**, such as snowy and icy conditions, the focus is on the 3-step rule: clear, support or heat. **When it comes to heating, businesses that have decided to maintain frost-free conditions in their buildings throughout the winter are of course at an advantage. This not only saves time and effort, but also increases flexibility: if the general situation changes, production can resume more quickly.**



# *3. BLACKOUTS* and gas shutdowns

How to prepare for an unplanned disruption to your electricity or gas supply.

The German **horticultural producers’ associations** in particular have been working flat out for months to secure the energy supply for all branches of horticulture and to reduce your financial burden. Therefore, please always look out for the latest recommendations and information – also those communicated by your **energy provider** and **gas network operator**. It is advisable to contact them in good time anyway in order to discuss any special requirements and/or the need to safeguard your power supply.

However, our main focus in this article is on the safety of your greenhouses and technical equipment, as well as your insurance coverage.

## HERE'S WHAT YOU CAN DO TODAY TO PREPARE:

- Carry out maintenance and inspections of your **emergency power supply** on a regular basis.
- Due to the current difficulties involved in obtaining materials, it is a good idea to keep a **reserve supply** of **materials** such as glass, sheeting, joists or support poles, as well as tools, on hand. This will enable you to protect your greenhouses and crops in the event of an emergency.
- Check whether **alternative heating options** are available. Also, remember to store sufficient fuel in time for the snow season. Conducting **trial runs** with the alternative heating systems is another element of prevention.
- In the event of an **outage of the heating system** in your greenhouses, similar safety measures apply as in the case of a planned shutdown. In winter, the main concern is to **protect systems containing water and liquids** from freezing and – in snowy and icy conditions – to prevent **damage from snow pressure.**

**Our checklists provide a quick overview and a detailed reference guide for you to tick items off the list of recommended preventative and emergency measures.**

## WHY DAMAGE CAUSED BY AN ANNOUNCED SHUTDOWN OF YOUR ELECTRICITY OR GAS SUPPLY IS NOT INSURABLE.

Wars, nuclear reactor incidents or other emergencies on a national scale are so-called "accumulation losses" and not insurable. The reason is clear: insurance only works if losses are distributed from a few to many shoulders. Scenarios in which a large proportion or all of the insured are affected cannot be financed by the community. Such scenarios also include an announced shutdown of the electricity or gas supply.

**A sudden, unannounced power outage, such as one caused by lightning striking the substation, on the other hand, is an event that is generally covered by insurance – for example, by your spoilage insurance.**

For details, please refer to the terms and conditions of your insurance policy. Or simply contact us personally if you have any specific questions.



# *4. CHECKLISTS* and services

## **Checklist 1:** General preparation for winter

☐ **Emergency power supply / combined heat and power plants**

- ☐ Power units
  If necessary, check oil level, battery, frost protection. Regular trial runs!

☐ **Machinery, vehicle fleet**

- ☐ Tractors, forklifts, etc.
  Switch to winter operation mode, check frost protection, if necessary, connect battery protection/ trickle charge.

☐ **Check alternative heating options**

- ☐ Operability test, if necessary fuel storage, trial runs.

☐ **Construction**

- ☐ Keep joists or support poles ready to secure areas at risk of collapse.

☐ **Roofing material**

- ☐ Maintain a reserve supply of glass and sheeting, and have tools ready for emergency repairs.

## **Checklist 2:** Damage prevention in “frost-free” operating conditions

- [ ] **Greenhouses**
  - [ ] Check position of the thermostat
    The temperature should regularly be measured in the coldest part of the building and preferably not be exclusively room air controlled.
  - [ ] Discuss special features with your heating contractor/service partner
    A slightly higher base temperature is recommended, for example, if your system does not react quickly enough (if the differential gap is too large). Ask your heating specialist for advice!
  - [ ] Regular inspection rounds
    Sometimes individual sections of the heating system have a weaker flow than others. In this case, colder parts of the greenhouse, e.g. the eastern straight wall, are particularly at risk. Watch out for any changes!

**What we generally do not recommend: “only” keeping the heating system frost-free.**
**This was common practice in the past but requires**

- **very precise heating control**
- **a large number of contact and immersion sensors**
- **and constant water circulation when outside temperatures fall below 0 degrees.**

**Even with all these precautions, damage nevertheless frequently occurred in the past.**



## **Checklist 3:** Planned or unplanned heating outage (what to do when the outage occurs!)

- [ ] **Greenhouses**
  - [ ] Installations containing water
    Completely drain all heating and irrigation installations that contain water. No residual water may remain in valves, pumps, heat exchangers, ebb and flow irrigation systems, fertilizer systems etc. If necessary, blow completely dry using compressed air.
  - [ ] Rainwater, snowmelt, condensation water runoff
    Ensure drainage is unobstructed.
  - [ ] Climate control
    Switch off automatic operation! Risk of freezing vents!
- [ ] **Central heating systems in the boiler house**
  - [ ] Boiler, distribution, etc..
    Shut down equipment. Drain water completely, also from pumps, valves, closed circular pipelines, expansion tanks. Drain the emergency cooling system of solid fuel boilers and drain the main water supply also in frost-free areas. Drain the water from oil tank heaters.
- [ ] **Goods and supplies**
  - [ ] Make sure storage conditions of liquid supplies (pesticides, fertilizers, paints, cleaning agents, etc.) is frost-proof.
- [ ] **Pneumatically controlled systems**
  - [ ] Compressed air systems
    Drain water separator.
- [ ] **Water supply**
  - [ ] Water tanks
    If necessary, install electric heated hoses on drainage and intake systems or encase them so that they are frost-proof.

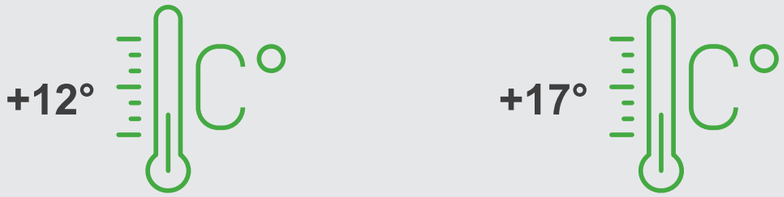
# **Checklist 4:** Emergency measures in the event of snowfall, snowstorm, severe frost

**The following measures apply to all greenhouses to prevent damage from snow pressure – but are particularly important for unheated greenhouses or those which are kept frost-free. Remember the 3-step rule: Clear! Support! Heat!**

- ☐ **Clear the snow**
  If possible, immediately after it stops snowing. Ensure that the roof surfaces are evenly cleared of snow.
- ☐ **Remove icicles**
  Particularly important if there are protruding panes near the eaves or sloping walls.
- ☐ **Support the structure in endangered areas**
  With joints, support poles. Never place these under the roof trusses! Be careful if there is already snow on the roof!
- ☐ **Keep (outside) downpipes clear**
  Particularly if they are gable column downspouts in venlo blocks. Use road salt in an emergency; pump out any snowmelt. In venlo blocks with aluminum eaves gutters, the gutters often freeze on the drain side, which can lead them to burst.
- ☐ **Water tanks**
  Check for ice build-up and prevent ice from adhering to the inner foil when removing the water.

**Or (if possible): Heat as soon as snow starts to fall!**

## MINIMUM TEMPERATURES IN THE ROOF AREA




Single glazing and sheeting

Insulation material

**Don‘t forget to open screens!**



In February 2021, our member company “Schachtschneider Stauden” installed 250 metal stanchions after a storm warning.

# ***OUR*** Service

## OUR RISK CONSULTANTS IN THE FIELD CAN INFORM AND ADVISE YOU

- on the impact of operational changes on your insurance coverage
- if you are concerned about whether your insurance sums and your coverage are still sufficient in times of inflation and increasingly extreme weather events
- on making appropriate adjustments to your contracts (in view of the current security situation, have you already informed yourself about HORTISECUR Cyber?)
- regarding new plans for the use of renewable energies or energy saving measures
- on prevention and protective measures in your individual business situation

**Please contact us as soon as possible - we will be happy to assist you!**

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