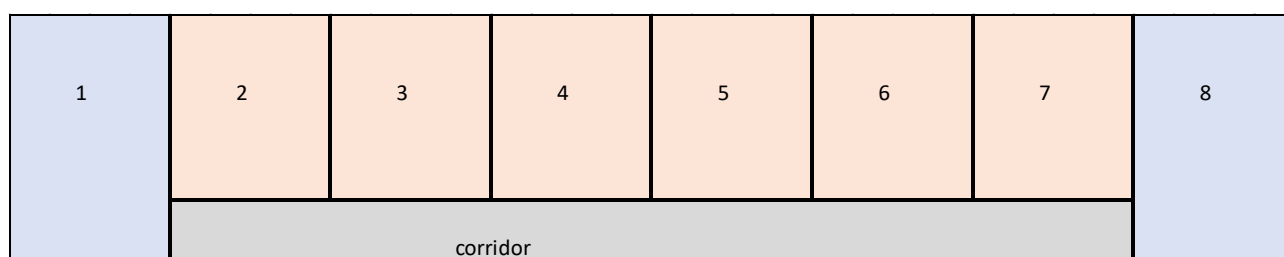


Curtains for the research greenhouse at NIBIO Særheim

Current situation

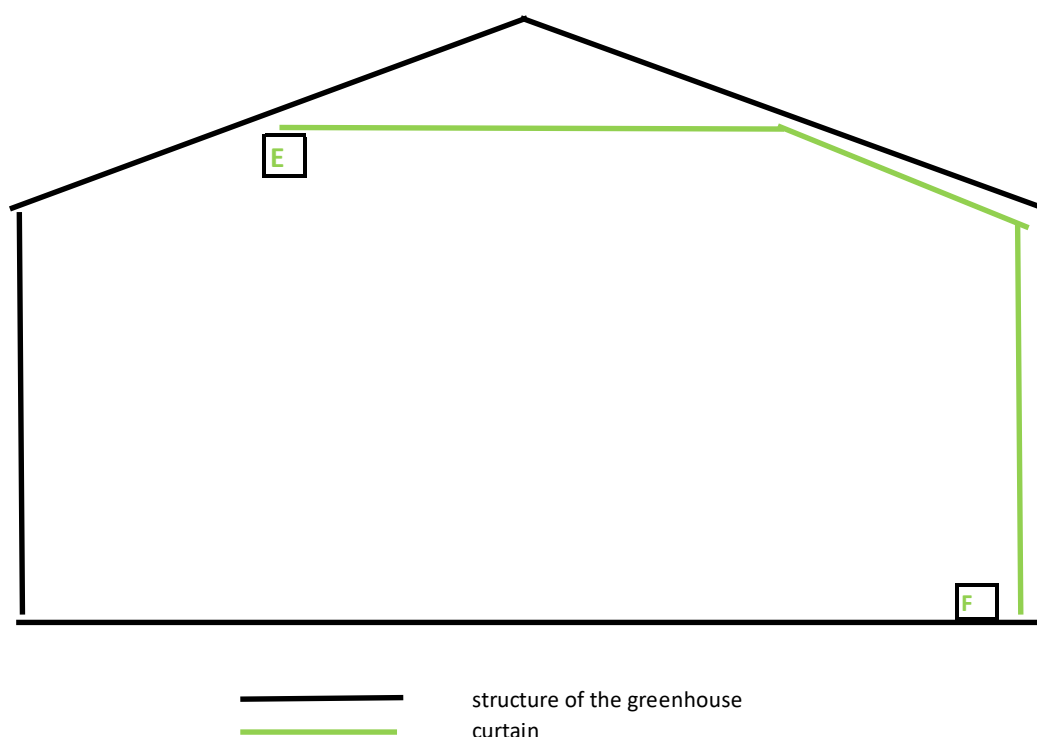
At the research greenhouse at NIBIO Særheim, Postvegen 213, 4353 Klepp stasjon, NIBIO wants to replace the old curtains in 7 compartments and install in one compartment where curtains until now was not installed (Compartment 8, see Drawing 1). The greenhouse is approx. 12 x 60 m and is divided into 8 compartments, with a corridor running along the compartments. The compartments 1 and 8 are 8 m * 14 m and compartment 2, 3, 4, 5, 6, and 7 are 7.3 m * 12 m. The curtains cover the south wall and parts of the ceiling, as shown in Drawing 2.

South side of greenhouse



North side of greenhouse

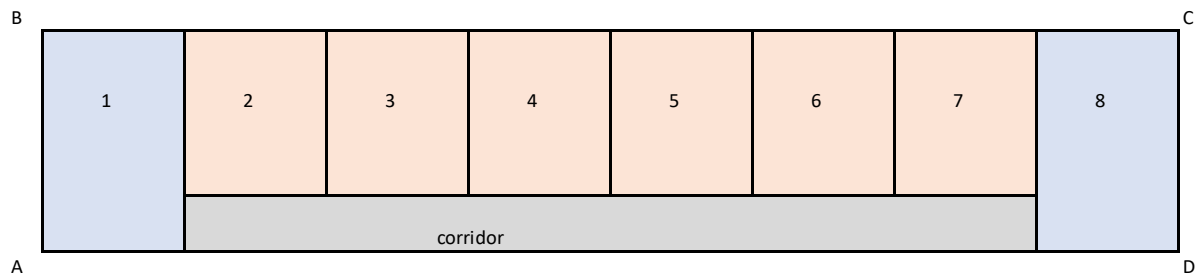
Drawing 1: Overview of the greenhouse



Drawing 2: Side view of compartment 2, 3, 4, 5, 6 and 7. Distance from E to F is 12 meters.

in each compartment, the wall and side wall parts have two curtains, each covering 50% of the compartment. The two curtains are pulled together by the same motor driven string.

In compartment 1, the curtain is in the same way mounted to the roof and back wall of the compartment and an additional curtain is mounted to the outside wall (A-B – see Drawing 3)



Drawing 3: 2 sides (A-B and C-D) which needs extra curtain (on outer walls).



Drawing 4: place where the extra curtain in compartment 1 and 8 must be mounted

In compartment 8, there is at this moment no curtains mounted. We want this compartment upgraded with curtains as is in compartment 1.

Bid makers can eventually visit the greenhouse to look at the project before giving bid. However, we encourage also to use an electronic conference (Teams, Zoome) that can be held with the bid-maker, in order to answering to what works we want to be done. In such a meeting we can also show the situation by live PC-cameras, if wanted. In this way, we hope to avoid visits to our greenhouse.

Summary

- New curtains in compartment 1, 2, 3 4, 5, 6, and 7, which replace the current old curtains. The size of the curtains is 7,3 m length and 12 meters wide, All the necessary parts to mount the curtain must also be replaced. However, the old electrical tube motor and the tube to fix the pulling wires on, can still be used.
- In compartment 8, we want the curtains be installed like in compartment 1. Here, we have no existing curtain, which means that the complete pulling system must be installed.
- The curtains must have a shading effect of 45 - 50 % and an energy saving of at least 45 %
- The curtain must be made off materials with fire retardants.
- The price given must include all costs related to the installation
- Expected guarantee; 5 years after installation on the material (curtains and fixing material)