



Higher Quality Results in Lower Cost of Ownership

RESOURCES

How to Compare Competitors' Greenhouses

The comparison can be very difficult because manufacturers don't all use the same calculations, don't provide the same levels of detail, and don't offer the same quality of design and equipment. The only way to ensure an apples-to-apples comparison is to dig into the details. What follows is a relatively short checklist of elements to evaluate when comparing quotes.

- **Manufacturer's warranties** – Do they hide their warranty in the contract terms and conditions, or do they showcase it? The only way to prove bold claims of quality and customer service is to back it up with a strong warranty.
- **Snow and wind load on the greenhouse structure** – Would the structure survive a 5-year storm? A 10-year storm? All your quotes should use the same design assumptions.
- **Frame material specifications** – Request the specifications of the steel used in producing the greenhouse to ensure it is not substandard material. Steel strengths can vary widely. The galvanized steel of your frame should be a high yield strength structural grade, manufactured in accordance with ASTM A500 and A513 standards.
- **Frame and hardware specifications** – Compare the size, type and gauge of the steel used to manufacture the greenhouse columns, anchors, trusses, bows, cross braces, etc. Watch out for quotes that provide for thinner tubing, smaller diameters, non-round cross sections and questionable metal grades.
- **Air exchange rate** – Verify that the ventilation and cooling system is sized to allow at least 1.3 air exchanges per minute through the greenhouse for proper air movement.

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Heating system specifications

Verify that the heating system is sized to reach your optimum inside temperature when the outside temperature is at its lowest.

- Heat loss is mainly affected by the house's covering material. Each material's U-value is a measure of how quickly heat flows through it, and is measured in BTUs/ft²/hour/ degree. You want a small U-value in order to minimize energy costs.
- Corrugated polycarbonate has a U value of 1.5 and is the least efficient material typically in use. Twin-wall polycarbonate has a U Value of .65. Double-layer polyethylene has a U value of .70. So, selecting the wrong covering material can double your energy bill.
- Unit heaters are generally 80% – 85% efficient. This means the BTU input must be 20% higher than the BTU output required to heat the greenhouse. For example, a house requiring 1,000 BTUs of actual heat will need a 1,200 BTU heater.