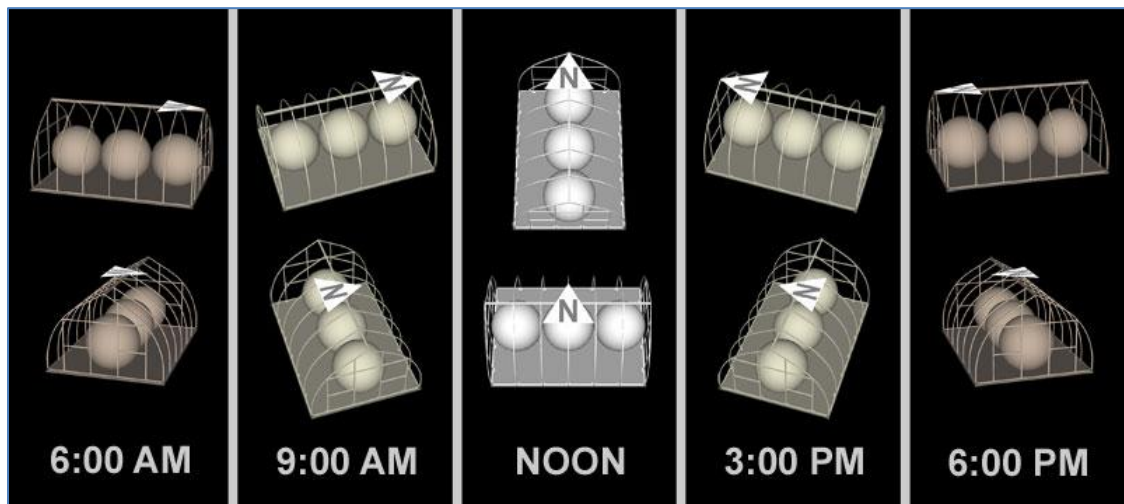


SITE PREPARATION

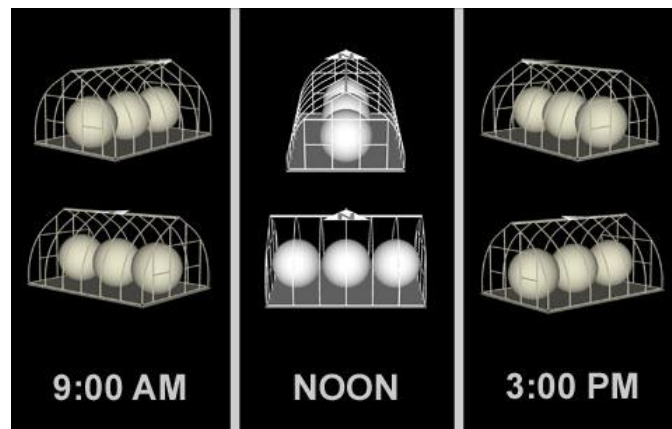
Orientation

Optimal orientation for a greenhouse is that which maximizes sunlight exposure throughout the day or throughout the season. The images below illustrate a six-meter Riga XL viewed along the path of incident sunlight (as if being viewed from the sun) at specific times of day. Use these views to estimate which orientation presents the largest target for sunlight during your preferred growing period. Keep the following in mind as you plan your orientation:

- ❖ Compared to mid-day sunlight, morning and afternoon light is subdued because it must travel much greater distances through the atmosphere. This is called extinction.
- ❖ Light that strikes perpendicular to the glazing surface is admitted with less loss than that which strikes at an oblique angle. The curved sides are better optical surfaces than the gables.
- ❖ If plant rows are aligned with the greenhouse length, the north-south orientation favors summer growing because it accommodates balanced exposure on both sides of the rows.
- ❖ The east-west orientation favors winter growing because it presents a larger target to mid-day sunlight and admits more light and heat. Balancing row exposure is not practical during winter.



Incident sunlight for North-South and East-West orientations at the summer solstice, 46.6° latitude (Seattle)



Incident sunlight for North-South and East-West orientations at the winter solstice, 46.6° latitude (Seattle)