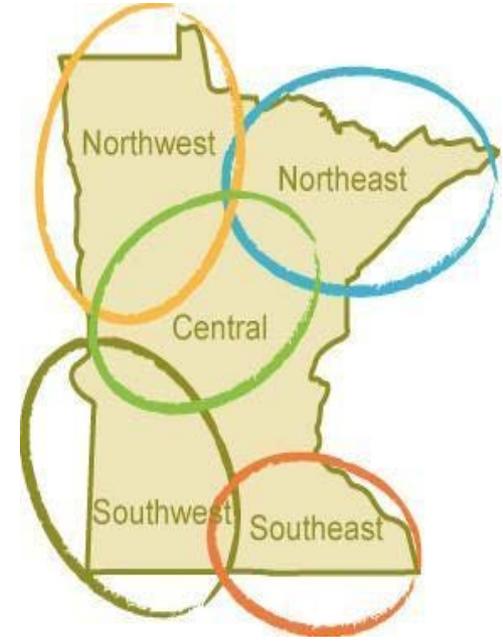




Deep Winter Greenhouses

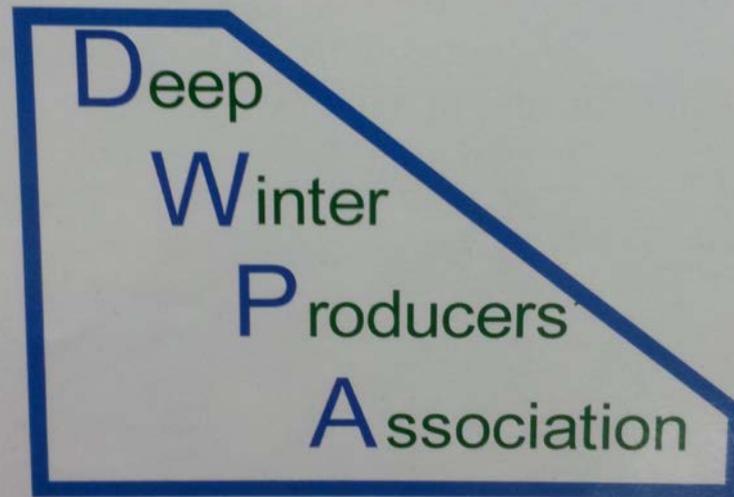
Regional Sustainable Development Partnerships



UNIVERSITY OF MINNESOTA
EXTENSION
Driven to DiscoverSM

Now Organizing

DWPA



***Providing our communities
with fresh, local produce
in the coldest weather!***





Carol Ford and
Chuck Waibel

~ ~ ~

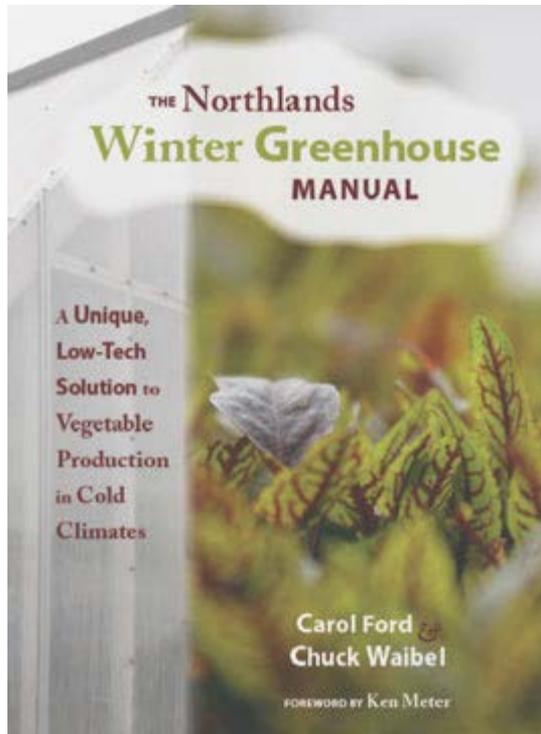
Garden
Goddess
Produce



Minnesota Garlic Festival

Northlands Winter Greenhouse Manual

www.gardengoddessenterprises.com/book.html



- By Chuck Waibel and Carol Ford of Garden Goddess
- How to design and build a passive solar greenhouse for growing fresh, local food in winter

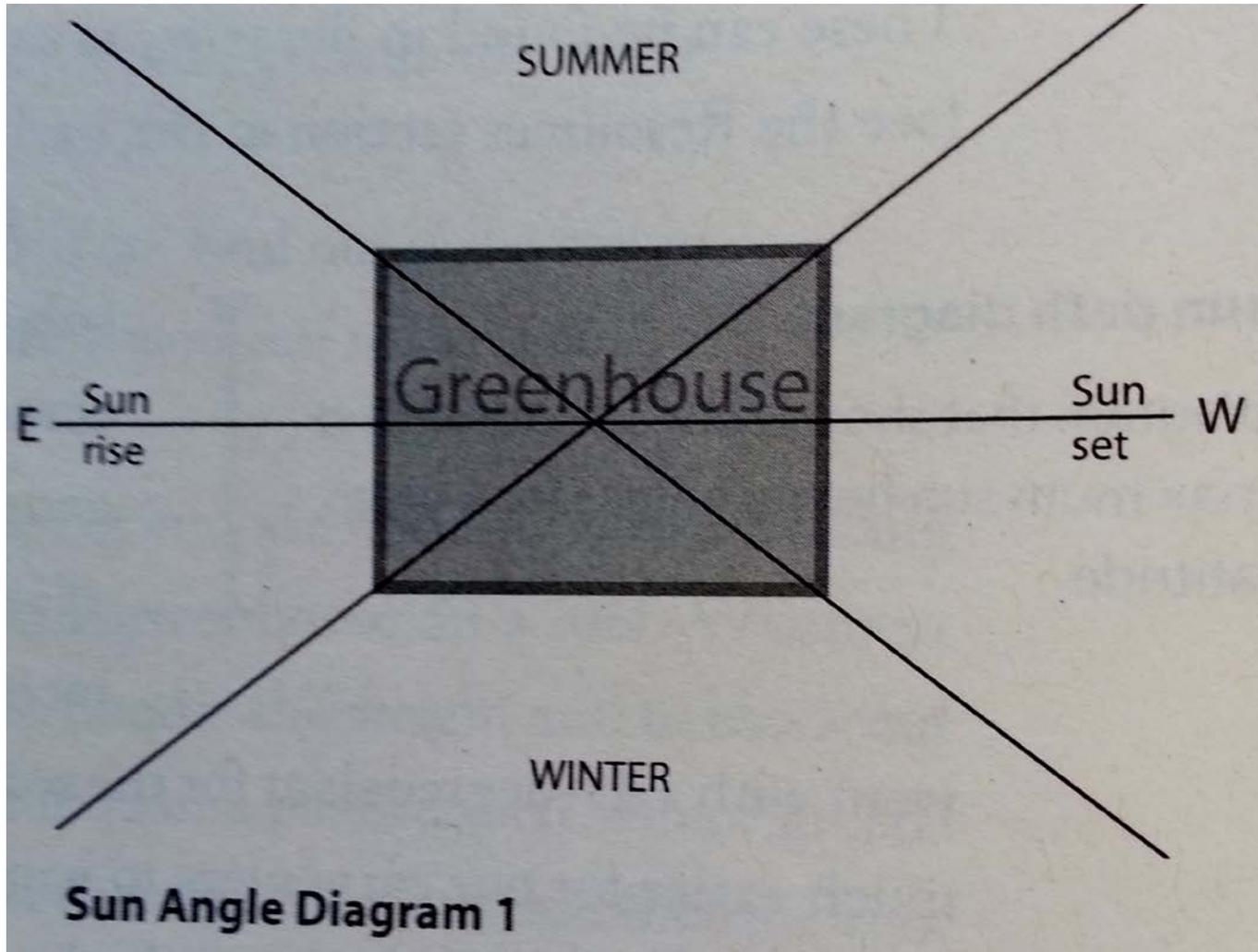
Designing and Building a Garden Goddess DWG



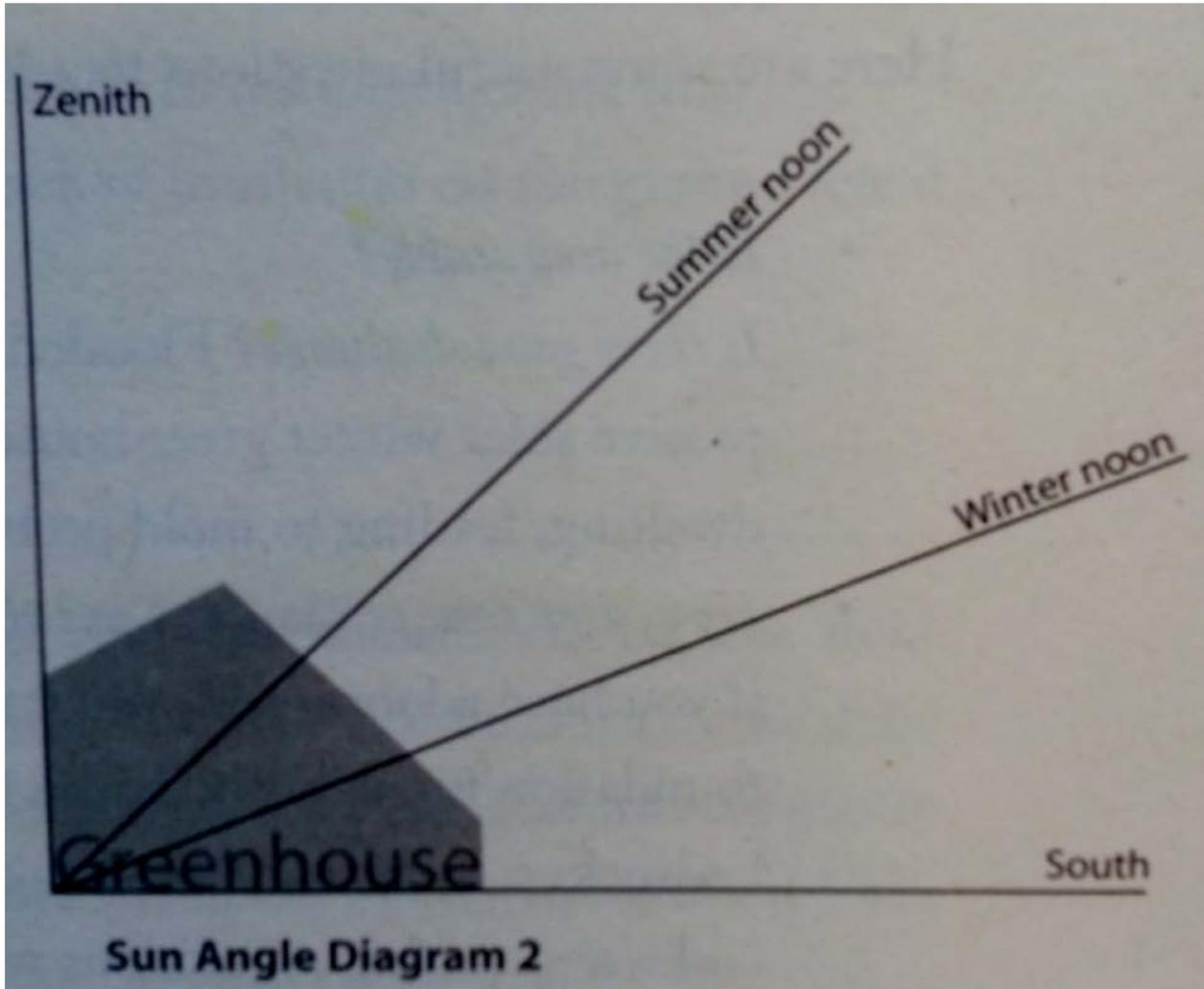
The Passive Solar System



Locating the Greenhouse



Angle of the Sun



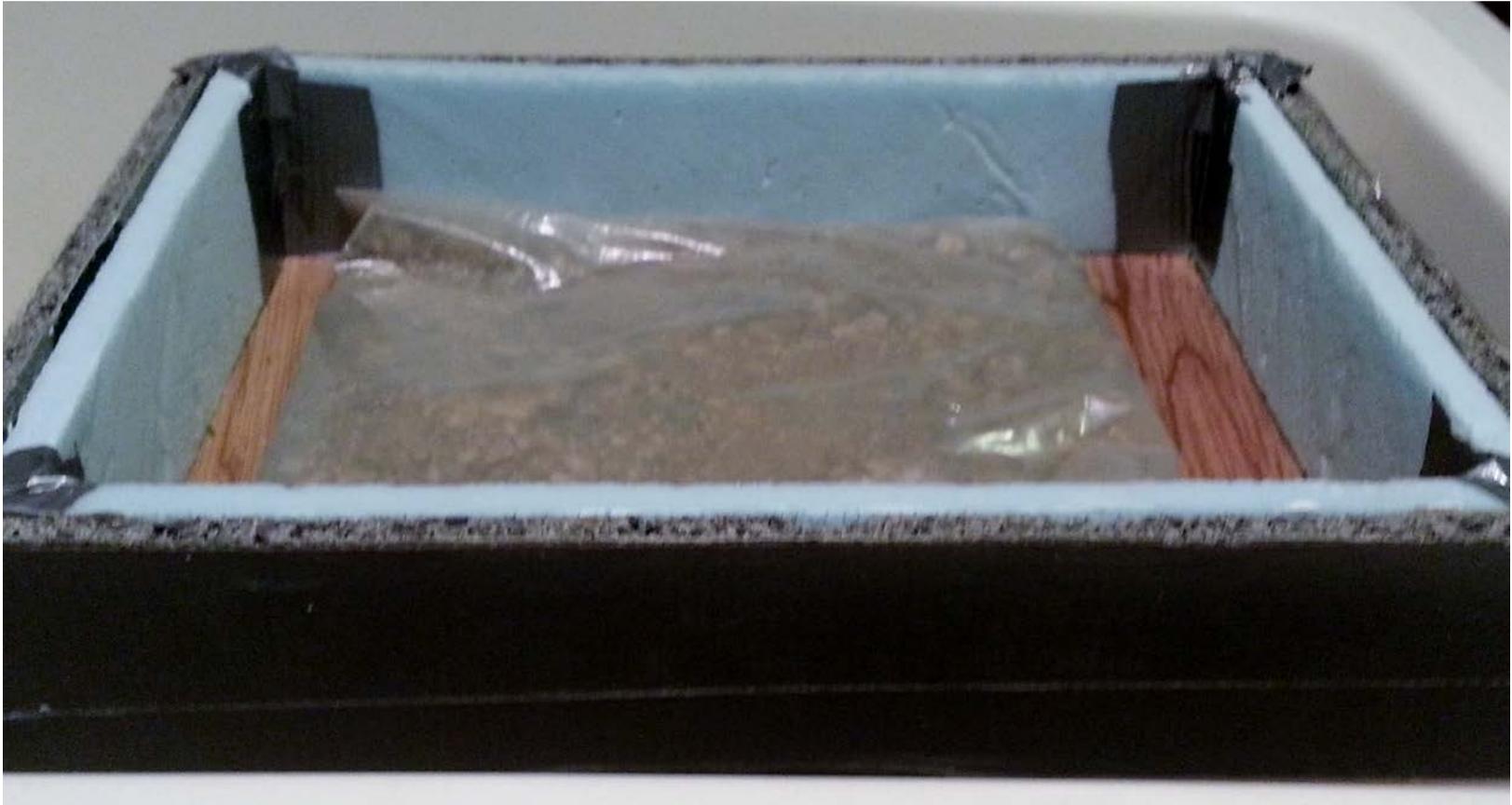
Soil, Power, Water





Attach
north wall
to an
existing
building

Foundation and Heat Storage



Thermal Mass



Top Layer

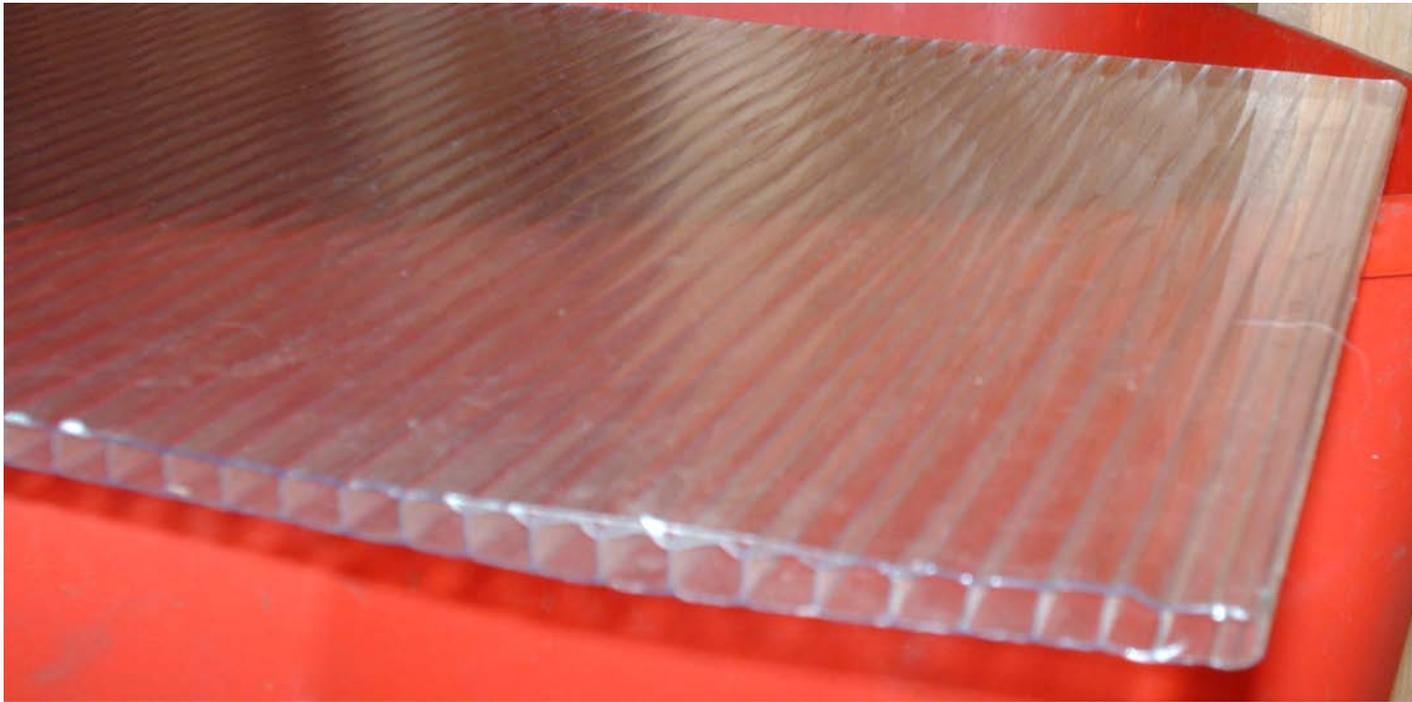


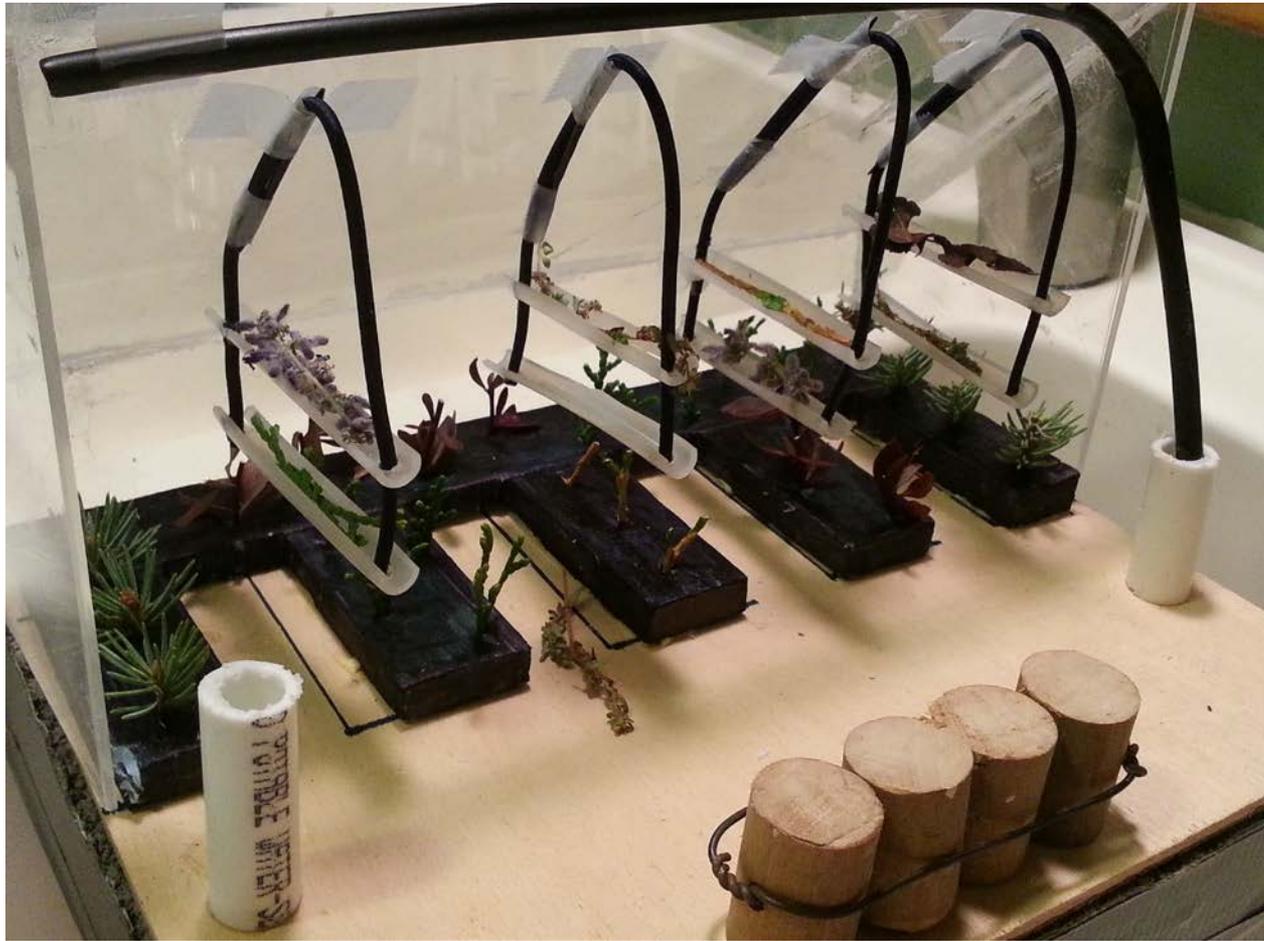


Framing and Insulation



Glazing and Performance





Raised Beds and Hanging Planters

Cool Temperature Greenhouse





RSDP Programming and Resources

Thank You!

To Carol Ford and to all of you for listening

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