

AllSeasonsGarden

workshop series



Four Seasons Gardening

This class is presented by Master Gardener Volunteers with the support of the University of Maine Cooperative Extension and Laudholm Trust at Wells Estuarine Reserve.

Four seasons gardening in our plant hardiness zone is dependent upon a suitable greenhouse or hoop house, row covers, cold hardy crops, and succession planting.

The hoop house we're constructing in this class is a modified Gothic arch high tunnel design. It is oriented with the long axis east to west and it is light weight and movable. A movable greenhouse will allow for the soils to be restored by sun, rain, and deep rooted cover crops and avoid pests and disease caused by soil nutrient problems. Row covers are light weight permeable translucent fabric (sold as Agribon or Remay), which is loosely laid over a wire armature close to the crops, and which offers an essential additional layer of cold weather protection.

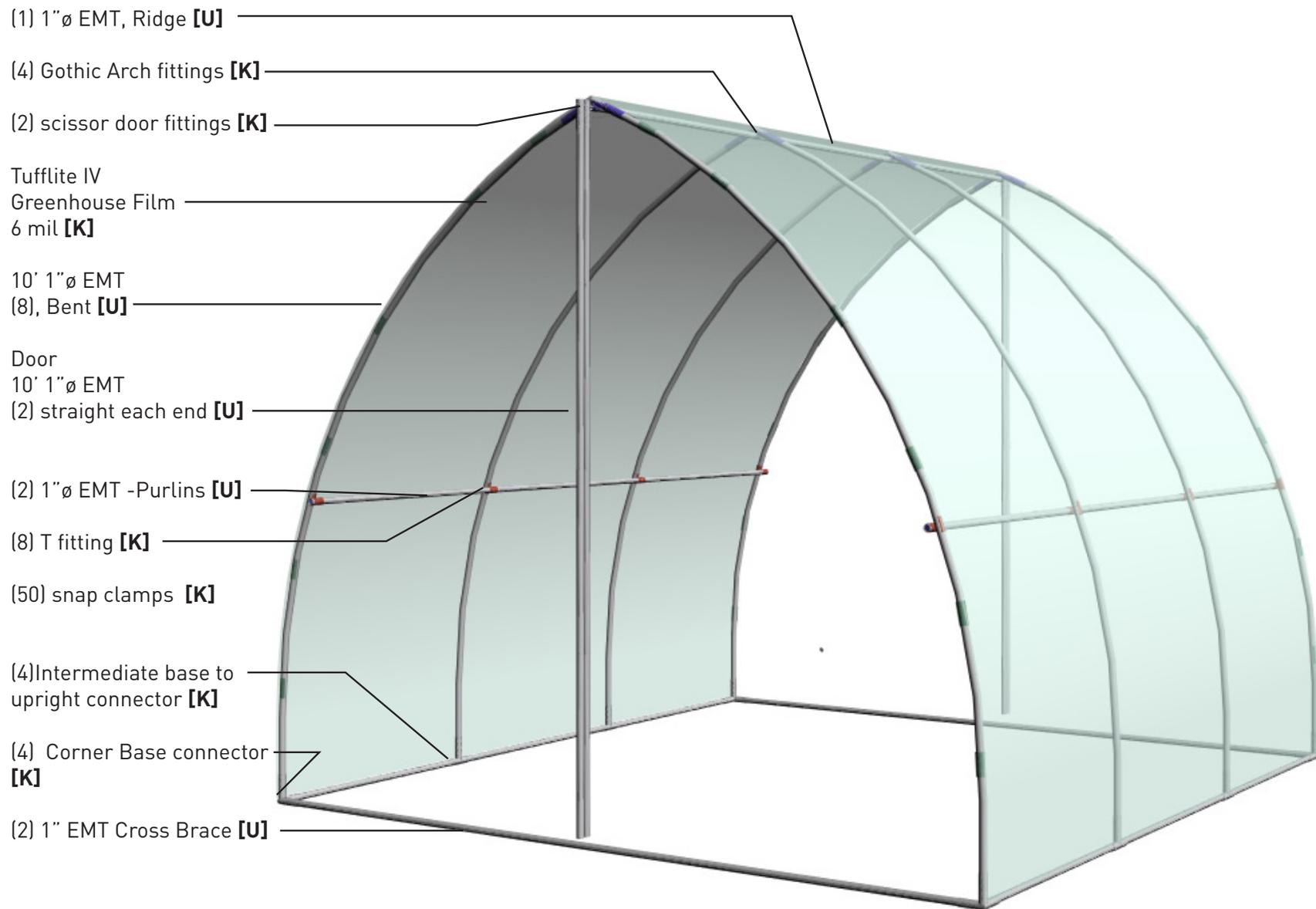
Cold hardy crops noted below must be resistant to temperatures as low as 12° F without damage. Succession planting means planting small batches of crops many times throughout the season. Succession planting works well because as one crop finishes producing, it can be pulled out and composted, leaving room for another. A good place to start the fall garden is with greens. Spinach, Arugula, Lettuce, Mustard, and Mesclun all grow well in our cool fall weather and are ready to harvest sometimes less than a month after germination. Plants grow slower in fall due to shorter days and less light intensity, so you need to allow a couple more weeks for them to reach maturity than spring planted crops. You may also plant or move crops such as Arugula, Beet Leaves, Carrot, Claytonia, Endive, Lettuce, Mache, Minutina, Spinach, and Turnip under the greenhouse, which along with the row covers will protect the crops from extreme frosts and extend the harvest time throughout the winter. The high tunnel greenhouse may also be used in the summer for heat-loving crops such as Tomatoes, Melons, Eggplant, Cucumbers, Sweet Potatoes, and Peppers.

Many Four Season Gardeners like to move the structure in the spring to cover warm season crops and also to allow the soil where the greenhouse spent the winter to receive natural rainfall which will prevent any build up of soluble salts, which can be a problem when planting in the ground in a greenhouse structure that is not moved.

The All Seasons Garden at Laudholm farm is located at 43°20'05.28 N latitude, USDA Plant Hardiness Zone 5a.

August 2014





[K] - supplied in whole hoop house kit

[U] - user purchased locally (Home Depot, Lowe's, hardware/lumber yard, etc.)



(1) 1" \emptyset EMT, Ridge [U]

(4) Gothic Arch fittings [UO]

(2) scissor door fittings [UO]

Tufflite IV
Greenhouse Film
6 mil [UO]

(8) 10' 1" \emptyset EMT,
Bent, [U]

Door:
(2) 10' 1" \emptyset EMT
straight each end [U]
cut to size

T fitting (12) [UO]

(40) snap clamps
[UO]

(2) 1" EMT Cross Brace [U]

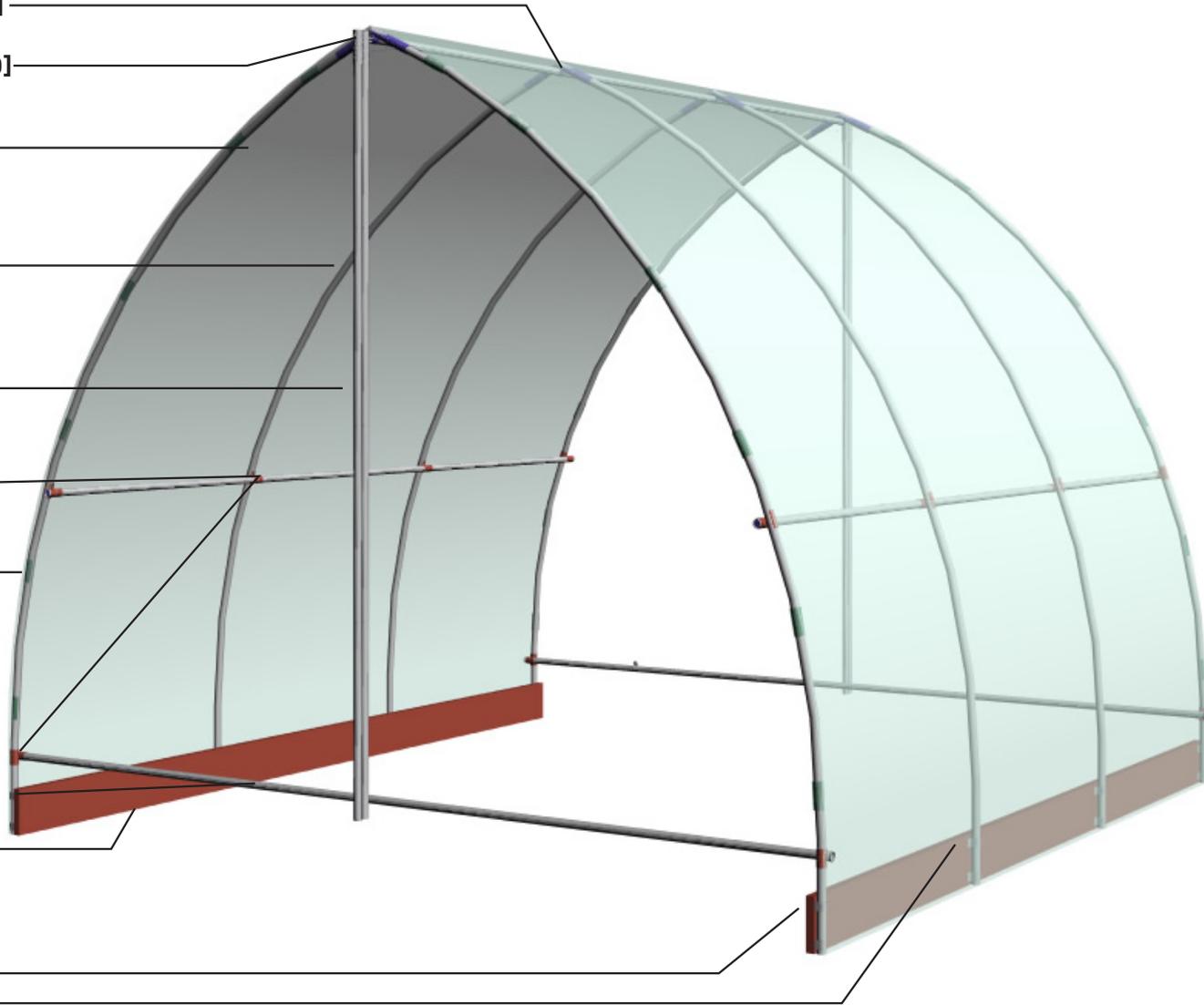
(2) 2x6x10' Lumber [U]

1" EMT Clamps [U]

(4) 2 hole,
(4) 1 hole
each side

[UO] - user ordered (hoop benders/Lost creek, Johnny's, etc.)

[U] - user purchased locally (Home Depot, Lowe's, hardware/lumber yard, etc.)



Hoop House A

10' x 10' Gothic Arch with 6 mil greenhouse film, scissor door entrance.

1" ø EMT tubes	19	\$ 7.33	\$139.27
Complete Kit	1	\$281.41	\$281.41*

Home Depot, Lowe's
Hoop Benders *reg. price. On sale for 20% (\$225.13)

\$420.68

total plus shipping

Kit contains all components needed except EMT tubes: Connecters: top for Gothic arch/ridge (4), base corners(4), intermediate base to uprights (4), " T" for purlins (8). Scissor door hardware (2), 24' x 24' 6 mil greenhouse film, snap clamps (50), screws.

Also recommended: Sandbags or ground screws, row covers and supports

Hoop House B

10' x 10' Gothic Arch, modified

1"ø EMT tubes	17	\$ 7.33	\$124.61
Top connectors	4	\$ 9.71*	\$ 38.84*
Scissor Door fitting	2	\$ 10.29*	\$ 20.58*
1" cross connector	8	\$ 16.89/4	\$ 33.78*
6 mil Tufflite IV	1/2	\$198.00*	\$ 99.00*
Snap Clamps	40	\$ 5.95/10	\$ 23.80*
2x6 base rails	2	\$ 5.92	\$ 11.86
misc hardware		\$ 25.00	\$ 25.00

Home Depot, Lowe's
Hoop Benders *reg. price. On sale (20% off) thru 09/02/13 (\$7.77/\$31.08)
Hoop Benders *reg. price. On sale (20% off) thru 09/02/13 (\$8.23/\$16.46)
Hoop Benders *reg. price. On sale (20% off) thru 09/02/13 (\$13.51/\$27.02)
Johnny's *reg. price. On sale (10% off) thru 10/15/14 \$178.20 (\$89.10)
Johnny's *reg. price. On sale (10% off) thru 10/15/14 \$5.35 (\$21.40)
Home Depot
Estimate - (8) 2 hole 1" EMT clamps, (8) 4 hole 1" EMT Clamps, #10x1 self-drilling hex head screws,

Paint

\$377.47

total plus shipping where applicable

Also recommended: Sandbags or ground screws, row covers and supports

Tools needed:

tape measure, drill with hex/screw drivers, permanent marker, flat stable surface, 6' ladder, center punch, hacksaw, small round metal file, utility knife, rubber mallet. helper, little or no wind.

August 2014



Resources:

Hoop Benders (benders, components, kits, film) - <http://www.hoopbenders.net>, 903-497-1158

Johnny's Selected Seeds (Agribon/row covers, winter greens seed, etc. - search for season extension) - <http://www.johnnyseeds.com>, 1-877-564-6697

Farmtek (search film remnants, ground anchors) - <http://www.farmtek.com>

University of Maine Publication #2752, Extending the Garden Season (with video embedded) - <http://umaine.edu/publications/2752e/>

Extending the Gardening Season Using Raised Beds - <http://www.youtube.com/watch?v=9SMedSGbB1Q>

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Wells Reserve at Laudholm - <http://www.wellsreserve.org>

Recommended reading:

Eliot Coleman, *The Winter-Harvest Manual, Farming The Back Side of The Calendar*, 1998 (Fifteenth printing 2001)

Eliot Coleman, *Four-Season Harvest: Organic Vegetables from Your Home Garden All Year Long* (2nd Edition)

A Garden for All Seasons: http://www.fourseasonfarm.com/pdfs/garden_for_all_seasons.pdf

Copies of these resources may be ordered from:

Four Seasons Farm

609 Weir Cove Road

Harborside, ME 04642

www.fourseasonfarm.com

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