



Permaculture
Research
Institute
cold climate

Trellis About It! 2010 Juried Design Competition Submission Guidelines

How would you design a vertical growing system for melons and other vines that is low-cost, durable, and produces high quality fruit? Got an idea? Enter our juried design competition and help urban gardeners increase food production.

Background

The Permaculture Research Institute Cold Climate (PRI) formed in 2003 and is a 501(c)3 nonprofit dedicated to creating restorative culture for living in colder climates. Through education, demonstration, research and community building, we work to catalyze and foster innovation using permaculture design.

Our annual design competition was developed to bring together individuals and design teams seeking solutions to challenges facing our region. We believe that by applying our creative energies we can transform our immediate environment and generate further seeds of inspiration for cold climates throughout the world. [Download Design Competition Guidelines \(97Kb\)](#)

Introduction to our 2010 Juried Design Competition

Last year saw an explosion in local foods and urban agriculture. At PRI we launched Backyard Harvest, a community-building program in urban permaculture that provides fresh food and gardening education for homeowners and communities as well as urban food production training for our farmers. The 2009 season revealed opportunities for improving urban agriculture that form the impetus for this year's competition.

Growing food in urban areas has particular challenges. Tight growing spaces, limited sunlight, and degraded soils can easily undermine the urban gardener's efforts. Add to these problems the shorter growing season of this region, plus climate change, and you have the recipe for a complex design challenge.

We are asking applicants to design and build a modular growing system for melons and other vine crops. We are asking applicants to design and build a modular growing system for melons and other edible vine crops. The design of this system should be low cost to construct, durable, and easy to assemble. While growing melons on a trellis is not new, we are asking applicants to focus on very specific aspects of the design, incorporating the requirements as we describe them in this document, to produce a product that optimizes productivity and generates multiple benefits.

The top designs, up to eight, will be selected for display at a public exhibition and awards reception where the Grand Prize Winner will be announced. The Grand Prize Winner is awarded \$500 towards materials and implementation of the growing system where it will be installed at the Science Museum's Big Backyard.

Each member of the winning team receives a one year membership in PRI. In addition, the winning designers are granted the right to sell their modular-system on the PRI website for up to 3 years. PRI's commission for these sales will be 30%. Delivery of the product to the purchaser must occur within 3 weeks of order date and is the sole responsibility of the designers.

Design Submission Guidelines

Anyone is welcome to submit a design for this competition, including individually or in teams. A cross-disciplinary approach is encouraged and PRI will assist individuals in finding others with complementary skills and experiences if you are interested in team participation.

Those interested in submitting a design are encouraged to attend an Info Session on January 5, 2010. In this meeting we will discuss design criteria, model construction and other resources available to registrants. If you cannot attend, send in questions prior to the meeting and we will follow up.

The deadline for submission is Friday, February 26th at 4:00 p.m. No designs will be accepted after that date and time.

Submissions can be dropped off at Vesper College on Thursday, February 25th or Friday, February 26th from 9am - 4pm. Mailed submissions must be postmarked February 26th and should be sent to:

Vesper College
201 6th Street Southeast
Minneapolis, MN 55414-1164
ATTN: Adam Jonas

All Submissions must include:

1. **Presentation Board** including title, story, and annotated drawing of the model. (refer to sections I, II, and III for more information) The story of your submission should explain how your design evolved, what problems you are trying to solve, and which permaculture principles and climate moderating mechanisms are being demonstrated.

2. **Model** built with 3"=1' scale.

3. **Application Materials** - Please include a materials list, construction budget, and a short biography or resume of the team member(s).

Submissions will be evaluated by a panel of 5 judges who are well-versed in permaculture principles and sustainable agriculture.

Design Considerations

The designs should consider and incorporate the following criteria:

I. Follow Permaculture Principles

Permaculture is an ecological design system that looks to nature for inspiration when creating productive and resilient design solutions. Your design will be judged on how well you have employed one or more of the following permaculture design principles:

* **Catch and Store Energy:** Design the system to efficiently capture and direct sunlight and water so they are available when and where they are needed.

* **Integrate Rather than Segregate:** Your system should perform more than one function. For example, a trellis system may support melons as well as collect and disperse water.

* **Obtain a Yield:** Design your system to deliver multiple yields. For example, your design will be used for food production, but it can also benefit soil health, provide an inviting habitat for beneficial insects or increase season extension.

For more information regarding Permaculture design principles, we recommend David Holmgren's book: *Permaculture: Principles & Pathways Beyond Sustainability*. (Holmgren Design Services, Victoria, AU: 2002). The Permaculture Principles website offers nutshell descriptions of Holmgren's principles at <http://permacultureprinciples.com/principles.php>.

II. Demonstrate an Understanding of Proper Growing Conditions

Submissions will be judged on their exhibited comprehension of the proper growing conditions of melons and other suggested plants. Melons prefer warm, well-drained soil high in organic matter with a pH of 6.5-7.5. They need good air circulation to minimize disease and pollination to set fruit. A polyculture of plants rather than a monoculture enhances plant health. Companion plants that help melons flourish include squash, corn, radish, and pumpkins. Pest repellent plants include marigolds, oregano, and nasturtium. Pollinator plants include wildflowers and herbs.

Additionally, as climate change accelerates, we see the impacts in rapid swings in moisture and temperature levels. This year we had a late spring, a cool, dry summer, and sporadic, heavy rainfall. This causes plant stress and affects productivity. Your design will be judged on how well you have considered moderating these impacts.

III. Construction Criteria

Designs must be practical and easily built by the participants and gardeners not versed in construction. They should be durable. The structures should last at least 15 years and be able to support up to 50# in melons and other produce. In addition, it should be able to withstand cold climate conditions or easily disassemble for winter storage.

Material costs should be less than \$300. We encourage repurposing or using recycled materials as an added benefit.

IV. Create a Compelling Design Story

The story of your design should explain your thought process as you worked through the challenges of designing your modular-system. It should articulate which permaculture design principles you are experimenting with (from section I), and it should describe which climate moderating mechanisms you are incorporating (from section II).

V. Additional Design Considerations

The following criteria will also be considered as part of the process in determining a winner:

- * Experimental approaches
- * Aesthetically pleasing
- * Local or recycled materials used
- * Accessibility for harvest

Important Competition Dates

January 5, 2010 - Info session - details at http://www.pricoldclimate.org/event/trellis_about_it_info_session

January 15, 2010 - Deadline for registration

February 26, 2010 - Final deadline for design submission

March 12, 2010 - Awards reception and exhibition- details at http://www.pricoldclimate.org/event/trellis_about_it_exhibition_and_reception

May 31, 2010 - Deadline for design installation

Fees and Registration

In order to register in the competition, please :

1. Pay online or send a check for the \$10.00 application fee payable to PRI Cold Climate *by Friday, January 15, 2010*. To pay online, visit http://www.pricoldclimate.org/event/trellis_about_it_design_competition. To pay by check, mail your payment to:

PRI Cold Climate
PO Box 22508
Robbinsdale, MN 55422

2. If you are applying as a design team rather than an individual, please also send an email to design@pricoldclimate.org, listing the names and email addresses of all your team members.

For Additional Information

If you have additional questions, please contact Karen Graham at 763.551.9572 or email design@pricoldclimate.org.