

Work Team Contribution Report

Program Year 2007

This report details the work Agents/Specialists have done to implement the work of a specific work team during the identified calendar year and the results of that work.

Agent/Specialist(s) submitting: **David Whiting**

Work team(s) submitted to: **Environmental Horticulture**

Please check the appropriate box if this is a project involving: Agricultural Experiment Station, K-12/Youth,
 At Risk Youth, or is a Multi-State Project (list States) _____

1. What was the situation or problem addressed?
Elaborate on team plan of work statement as appropriate.

1. Water-wise gardening (xeriscaping) has lots of press in the horticultural circles, but little incorporation of concepts by the typical home gardener. For Colorado to deal with its critical water supply situation, the typical gardener will have to change his/her approach to landscape design and irrigation.

Looking at feedback from the *Composing Colorado Landscapes Conference* and talking with CMG volunteers and landscape design professional, it became apparent that the water-wise gardening messages need to be redirected. In the past, the primary message was around plant selection. The typical gardener mixed xeric plants into the general landscape and then continued to over-water the entire landscape. If Colorado residents are going to make significant change in the amount of water used for landscape irrigation, we will 1) have to improve irrigation system design, management and maintenance to become more efficient in our landscape irrigation and 2) incorporate hydrozones into the typical home landscape design.

Looking at the concepts of water wise gardening, most deal directly with the application of landscape design theory, as a process. Most gardeners know little about design theory and few approach it

as a process. Thus hydrozoning, a step in the process, has little application to the typical gardener.

2. The Colorado Master Gardenersm Program/Colorado Gardener Certificate Training Basis Course includes twelve standardized curriculum units among the fifteen topics covered in the training. In recent years, content has been focused on sustainable landscape management concepts with emphasis on water-wise gardening and diagnostic skills. The more focused and hands-on teaching approach has been very popular with CMG volunteers and Green Industry workers taking the training. Curriculum units from the CMG program are used by eighteen other states and provinces in the US and Canada.

The standardize curriculum units were develop by group process looking at learning objectives, content and teaching methods. With the use of distance education, more emphasis (by students) on active learning, and changes in teaching staff, it was time to systematically review each of the units.

In the review, emphasis was focused on clearing identifying the learning objectives, prioritizing content with in time limitations, and developing teaching methods more engaging to adult learners and for use in distance education delivery.

2. What did you do in response to the situation (outputs such as number of meetings, fact sheets & publications produced, newsletters) and with what audiences (# attending, general demographics)?

1. For 2007 CMG/CGC training, a new curriculum unit was added on ***Water Wise Landscape Design***. The curriculum was developed by David Whiting in partnership with Jeffry de Jong (an award winning landscape designer and instructor at Olds College, Alberta, Canada).

This was the first time that the CMG Program taught about landscape design. The unit introduced landscape design as a process emphasizing steps important to water savings. Students found the new curriculum very engaging with a high level of interaction and less lecture. Content was readily embraced by most, as new exciting information. Students hummed with energy as they left the class thinking about the evolution of their home landscapes. It is really a fun class to teach as students leave the class so energized. Some were over-whelmed with extent of the new content, having little prior knowledge of design theory and having never thought of design as a process. A few students left the class disturbed with the thoughts that their "precious home landscape" may need to be upgraded.

2. Twelve working groups reviewed the content of the various CMG curriculum units. Learning objectives were reviewed, clarified and updated. Content was prioritized within limited class time. Teaching methods were addressed, reducing lecture time. Small group discussion around scenarios and sample problems were added to other lab-type activities.

The revised curriculum has set a new standard on student engagement, and better supports distance education delivery.

In nine of the twelve groups, ninety percent of the work was done by David Whiting, incorporating input from the group. Irene Shonle, with input from her group, developed a new curriculum on ***Herbaceous Plants***. David Whiting, Catherine Moravec, and Carl Wilson, with support of others, reworked the ***Irrigation Management*** curriculum.

3. Please highlight any successful efforts to reach new and/or underserved audiences.

A major challenge in the CMG/CGC Training has been course to site outside the Colorado Front Range. Small class size, winter travel, and instructor time makes the traditional traveling, on-site instructor impractical.

For 2007, the CMG Program piloted CMG/CGC Training via distance education (using Acrobat Connect Professional). Training was offered to the Southwest Counties (Archuleta, La Plata, and Montezuma) and the Mountain Counties (Fremont, Chaffee, Gunnison, Summit, and Routt) via distance delivery.

Feedback from participant was amazingly positive, encouraging continued use of distance education. In feedback, half of the participants found the distance education acceptable. Half of the participants stated that they preferred the distance education over the traditional traveling instructor. Distance education gives them expanded opportunities for learning in a local class with less student travel, and better instructors.

Credit for the success goes in large to Ruth Willson for her vision and technical assistance behind the scenes and David Whiting for his understanding on DE theory and application.

4. Describe the outcomes/impacts that occurred as a result of these programming efforts:

- Distance education, with the delivery limitation in our current system, is acceptable and opens a new world of learning potential for all of Colorado.
- For 2008, the use of distance education will expand greatly. CMG/CGC enrollment is up some 25% state wide, primarily in distance education sites.
- On *Water Wise Landscape Design*, the introduction of design as a process is spreading among the CMG volunteers to other home gardeners like wildfire. To be honest, CSU Extension is going to have to scramble to keep up with the delivery demand and expand this educational direction.

5. Additional campus connections or resources you made or engaged to support this work (including specialists by name).

A major partnership in the CMG/CGC curriculum development is Jeffry de Jong, instructor in the School of Horticulture at Olds College, Alberta, Canada. We openly share curriculum content between institutions and have major plans for continued work.