

Garden Solutions – Raised Beds in a Wet Area

By Diane Dancer, Master Gardener Intern

My landscape plan included a wonderful area for raising vegetables and cut flowers. Unfortunately, Mother Nature thought it was a wonderful area for a bog. During all nine months of our rainy season, this particular patch of ground never dried out. groundwater was 18" below grade, and at times percolated up to the surface. To make matters worse, my pathways actually channeled heavy rainwater directly to the area.



Obviously if I wanted to grow anything other than Japanese iris, I had to raise the beds – a lot! Typical raised bed designs use 2x8 or 2x10 lumber as sides, lifting the soil line 7 to 9 inches above existing grade. Given my high water table, this simply wasn't high enough. My beds needed to be much higher to lift my plants up away from groundwater. The sides also had to be strong to support the weight of the fill material, since the boxes were 4 feet wide and up to 24 feet long. And lastly, I wanted to keep material costs low. After much consideration I came up with a workable solution. I decided to stack two 8-foot long 2x8s on edge for the sides. These sides would be supported with 4x4 fence posts at the box corners and every 8 feet along the sides. I designed the support posts to be 16" above and below grade (32" total length), so I was able to get 3 posts from a standard 8-foot long fence post. Two support posts would be placed at the corners for extra strength, and to hold the 4-foot long 2x8 end pieces. I chose untreated 2x8s, as they would be in contact with the soil, but the 4x4 posts were treated to resist rotting. Finally, with design in hand, off I went to the lumberyard!

When it was actually time to build my 'super boxes', I began by laying out their locations using a tape measure, wood stakes, and string lines. These layout lines were also used to establish grade on my slightly sloped area. Using more wood stakes, I marked the locations of the corner and intermediate posts along the string lines. And then I started digging postholes. In my wet soil I hit groundwater in several holes before they were deep enough, making digging difficult to say the least! I found it easier to lay out, dig holes, and install posts on one box at a time, since my four beds were spaced only 3 feet apart. I dug extra-wide holes at each corner post location to accommodate the double posts. I also over-dug the depth of all the holes and placed gravel in them to raise the posts to the correct height. Then, using the original layout string lines to position the posts correctly, I back-filled the holes. I found the double corner posts required extra attention to place correctly, as they moved a lot when back-filled (if I built them again I would use metal



corner angles to keep them together). Once all the support posts were in place, I installed the sides. This part went quickly! I placed the top boards first, using wood screws into the posts to hold them in place. Then the bottom boards were installed. Next came topsoil and compost, lots of topsoil and compost. My 'super boxes' were now done!

This will be the fourth summer I've used these raised bed boxes, and I love them! They drain perfectly. My perennial flowers are very happy living in them, and the strawberries are delicious. I've also discovered an added bonus to this design – the boxes are just the right height for a weary gardener to sit on while weeding!