New raised bed design accommodates more gardeners

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In the article “A Raised Bed Designed with Your Back in Mind,” which appeared in the April 2004 edition of Ag News and Views, I discussed the use of corrugated sheet metal to construct a 14-inch-high bed that enables gardening while in a seated position. This bed design has been well received by gardeners with physical challenges as well as the general gardening public.

Since the introduction of the corrugated sheet metal bed, several people have asked me to take bed design to a higher level, i.e. design a bed that can be utilized while in a standing position. Interest in stand-up gardening continues to escalate as the age of the baby-boom generation increases. With increasing age, folks find it more difficult to stoop while performing everyday activities, including gardening.

In 2006, I began exploring design options for a standing position raised bed. To qualify for consideration, a design would need to meet as many of the following criteria as possible:

1) lower construction cost compared to similar sized beds, 2) utilize readily available construction materials, 3) incorporate used or discarded materials to reduce cost, 4) easily modified to accommodate the height requirements of young and old, 5) ergonomically friendly, 6) free standing so as not to require anchoring in soil, 7) not more than 40 inches wide to enable access to the middle of the bed without reaching, 8) easily fitted with options such as crop trellising, shading and a miniature greenhouse covering.

After considering several designs, I settled on one that utilizes discarded truck (tractor-trailer) tires to create an elevated base, which supports a 2-inch by 4-inch lumber framed bed lined with corrugated sheet metal. When filled with soil, the tires create a strong, inexpensive base that does not require anchoring due to its large mass. The unique shape of the base imparted by the round shape of the tires enables the gardener to place one foot under the bed while standing at the side of the bed, effectively...
reducing stress on the lower back. Coincidentally, the most commonly available size of truck tire (as determined by a survey of discarded tires at a local truck stop in Ardmore, Oklahoma) has a diameter of 40 inches, ideal for the desired bed width.

This unique design can be used to construct a bed of any length and up to 35 inches in height. The height can be lowered to accommodate shorter gardeners by simply reducing the length of the framing material. The bed’s heavy duty construction accommodates the use of a soil-based growing medium. The bed will also support different sizes of containers for those interested in container production.

To top off the bed, I designed a protective cover that enables the gardener to extend the growing season and protect plants from inclement weather.

We believe the name “Easy Access Raised Garden Bed” best describes the bed for its ease of access and user-friendly characteristics. It is also easy on the pocket book. The cost of materials to construct a 10-foot-long by 40-inch-wide by 35-inch-high bed is $246. To construct a miniature tunnel cover for the bed will only set you back another $80.

Construction plans for Noble Foundation Easy Access Raised Garden Bed are available on our website at www.noble.org/ag/horticulture/easy-access-raised-bed.