

Batamote Germplasm desert zinnia

Zinnia acerosa (DC.) A. Gray

A Conservation Plant Release by USDA NRCS Tucson Plant Materials Center, Tucson, Arizona



Figure 1: Batamote Germplasm desert zinnia was released by the Tucson Plant Materials Center in 2008.

Description

Desert zinnia is a small shrub-like native perennial forb. It typically grows 4 to 10 inches tall with numerous branches and scores of narrow leaves. The flowers consist of off-white ray flowers and yellow disc flowers. The ray flowers may be somewhat toothed at the ends. Desert zinnia may flower from spring to fall when moisture is available.

Desert zinnia generally occurs on rocky open slopes and flats, often on calcareous soils. It occurs at elevations of 2,300 to 6,200 feet. It is found in Arizona, New Mexico, Texas, and Utah.

Source

Batamote germplasm is a composite of 9 accessions collected from native desert zinnia stands in southeastern Arizona (Figure 2). Accessions were planted in a field at the Tucson Plant Materials Center in September 2005. Visual evaluations revealed no discernible differences among the accessions for flowering dates, number of flowers, size, or vigor. Efforts were made to avoid indirect selection in order to maintain the genetic diversity of the assemblage. The assemblage contained no

observable detrimental characteristics; therefore no direct selection was made.

Conservation Uses

The potential uses of Batamote Germplasm desert zinnia include restoration of disturbed areas, wildlife and pollinator habitat improvement, and for increasing plant diversity on lands in southeastern Arizona. This release provides a forb for use in conservation plantings.

Area of Adaptation and Use

Batamote germplasm desert zinnia was developed for use in southeastern Arizona.

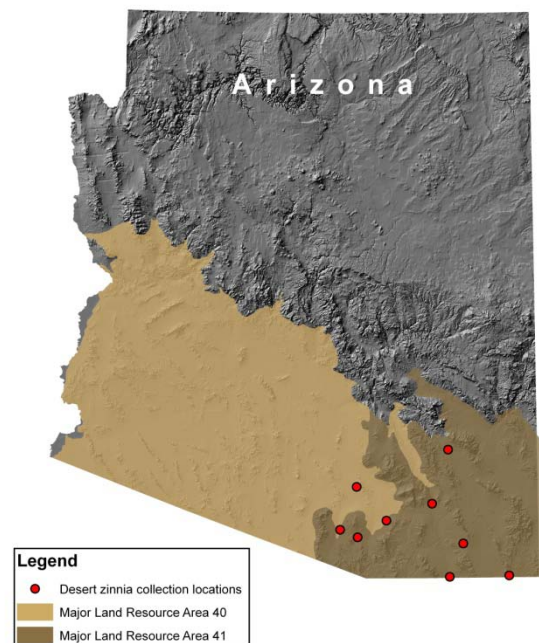


Figure 2: Collection locations of Batamote Germplasm desert zinnia.

Establishment and Management for Conservation Plantings

Desert zinnia may be direct seeded by broadcasting or drill seeding. For single species plantings the broadcast seeding rate is 2.2 PLS (pure live seed) pounds per acre and the drill seeding rate is 1.1 PLS pounds per acre. Batamote germplasm desert zinnia has approximately 760,000 seeds per pound.

Seed should be planted onto a firm, weed-free seedbed. Broadcast seeding should be followed with a cultipacker or harrow to provide seed with a shallow covering of soil.

When used as part of a mix, the seeding rate should be adjusted to the desired percentage of the mixture.

Desert zinnia may also be propagated in plugs or pots and transplanted. It should be propagated in containers filled with a well drained soil mix. Seed sowed into containers should be covered with approximately ½ inch of soil.

Desert zinnia may be mowed, and it seems to tolerate burning. It may be removed by applying glyphosate when foliage is actively growing.

Ecological Considerations

Batamote germplasm desert zinnia has no serious pest problems. It may be consumed by rabbits or ants when young. During periods of high rainfall it may also be infected by the flower blight (*Alternaria alternata*).

Seed and Plant Production

Batamote germplasm desert zinnia may be produced under typical crop conditions. Pre-emergent herbicide such as Oryzalin may be used to control weeds. Irrigation should be applied sparingly and only when the plants are actively growing. It is adapted to arid conditions and is thus susceptible to root rot if over watered. The plants benefit from light fertilization.

Seed has been successfully harvested using a Woodward Flail Vac seed stripper. When harvesting with a flail vac it may be necessary to space rows to allow the flail vac to get close to the ground. This may be accomplished by skipping a row where the edge of the flail vac will pass or by using wide spacing on beds. Seed loss may be a concern when harvesting with a flail vac. Other harvest methods may prove more efficient.

Although desert zinnia flowers from spring to fall, the most productive seed harvest is in the fall. Desert zinnia is a prolific seed producer. Seed produced under crop conditions seem to have appreciably higher percent germination than those collected from the wild.

Availability

For conservation use: Desert zinnia has limited commercial availability but may be available from specialized seed producers on request.

For seed or plant increase: Seed production of Batamote desert zinnia will be maintained by the USDA-NRCS Tucson Plant Materials Center. Limited quantities of seed are available to seed producers for increase and to other interested parties, as available.

For more information, contact:
NRCS Tucson Plant Materials Center
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www.plant-materials.nrcs.usda.gov/azpmc

Citation

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov/>>



Figure 3: Batamote desert zinnia flower being visited by a pollinator.

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