



LANDSCAPE ARCHITECTURE
PRODUCTION SUPPORT OFFICE – OFFICE OF DESIGN

MOWING TO CONSERVE ROADSIDE WILDFLOWERS: *TIMING IS EVERYTHING*

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Wildflower Areas (WAs)¹ persist on roadsides only if they are managed appropriately. Usually this can be accomplished simply by routine mowing timed to facilitate seed set and dispersal. Mowing must be timed to allow seed to mature (Frances, 2008). Wildflower Areas mowed too often or not timed to allow for seed set decline (Brys et al. 2004; Frances, 2008; Leng et al., 2011; Ken Quesenberry, personal comm.!).

Mowing prior to flowering must also be timed to allow wildflowers to grow normally. This requires an understanding of when wildflowers are expected to germinate, re-emerge (herbaceous perennials), and bloom. Mowing can also facilitate establishment (Jensen and Meyer 2001, Jutila and Grace 2002) since it increases the areas suitable for germination and seedling development (Frances, 2008). After that, mowing generally should be ceased at least 6 weeks before peak bloom of wildflowers is expected.

Many of Florida's roadside wildflowers are annuals to short-lived perennials. Since they rely on re-seeding to sustain their presence, such wildflowers produce copious amount of seed. Seed of two of Florida's native tickseeds, *Coreopsis lanceolata* (short-lived perennial) and *Coreopsis leavenworthii* (annual to short-lived perennial), require about 3 to 6 weeks to mature after peak bloom (Norcini et al., 2004, 2006). Years of observations by the author indicate the same for Indian blanket, *Gaillardia pulchella*, another annual to short-lived perennial common on Florida's roadsides. Florida DOT as well as other state Departments of Transportation specify that mowing be avoided until after seed set (Ferrell, Unruh, & Kruse, 2012 [Florida]; Texas DOT², 2018; Louisiana DOTD, 2000; Washington State DOT, 2017; Barton et al., 2009 [Delaware]).

Sometimes WAs are comprised of wildflowers intermingled with other native species, especially beyond the backslope where natural areas border the ROW. While preservation of many natural areas is best done by periodic fires, that is rarely an option within the ROW. Mowing helps to partly maintain the character of the natural area that extends into the ROW (Menges and Gordon, 2010; Rieger et al., 2014). Often in these WAs, wildflowers are intermingled with showy, fall-blooming native grasses; in those cases, mowing should be ceased by mid-July (Nancy Bissett, personal comm.ⁱⁱ).

SR 65: Classic example of timed mowing to preserve natural areas in the ROW. In the Apalachicola National Forest, exclusion of mowing from late winter through early fall, except for a 6-ft safety strip along the edge of the shoulder, resulted "... in flourishing native wildflower communities, including the endangered Harper's Beauty...[and] ...an improved experience for motorists." (Wood+Partners, 2009)

¹ Sites that have been properly selected based on their potential for long term sustainability considering weeds and existing or planted wildflowers, as well as other existing native species.

² "The Texas Department of Transportation has received national recognition for its roadside wildflower program. Since 1929, the department has maintained the practice of withholding mowing until wildflowers have set mature seed and expanding the range of wildflower species." (Texas DOT, 2018)

RECOMMENDATIONS

- Schedule routine mowing to allow desirable species to grow normally until seed mature. For example, mowing an area where there are spring blooming wildflowers needs to be halted in late winter and not resumed until seed mature in late spring or early summer.
- Wildflowers that are annuals or short-lived perennials, as well as showy native grasses, need 3 to 6 weeks after peak bloom for seed to mature.
- Where the native milkweed plants *Asclepias humistrata* and *Asclepias tuberosa* occur on the backslope and beyond, avoid mowing February through July (Daniels, 2017).
- WAs beyond the clear zone may not need to be mowed until after Thanksgiving, especially in rural areas. In some cases, mowing may not be needed every year (Gordon et al., 2000).
- Groundcover wildflowers, like *Mimosa strigillosa* and *Glandularia aristigera* (aka *Verbena tenuisecta*), can be mowed at any time if the site is mowed to leave at least 4 inches of stubble.
- Another common tickseed, *Coreopsis basalis*, and the very showy annual phlox, *Phlox drummondii*, should not be mowed until they turn brown.

ENDNOTES

ⁱ From: Quesenberry, Kenneth H <clover@ufl.edu>

Sent: Friday, March 18, 2011 7:44 PM

To: Jeff Norcini <OecoHort@comcast.net>; Blount, Ann Rachel Soffes <paspalum@ufl.edu>

Subject: RE: Flowering of *Trifolium incarnatum*

Jeff and Ann,

To the best of my knowledge regular mowing at short intervals (say 3 weeks) while the crimson clover is still in the vegetative state will probably delay the onset of flowering somewhat. If you wait until full flower and then mow it will be gone for the year, with little to no regrowth and flowering. This plant is a true annual and once a stem terminates in a flower, that stem and in fact most of the plant is in a senescence mode and will die.

ⁱⁱ From: Nancy <nbissett@thenatives.net>

Sent: Saturday, December 7, 2019 9:53 PM

To: Jeff Norcini <jeff@oecohort.com>

Cc: Scott_Davis@fws.gov

Subject: Re: Mowing of roadside native grasses

Yes we usually suggest if 2 mowings are desired to mow in late winter and mid July to remove dead stalks before spring growth and hit weedy species by mid July so fall flowering species can still grow out. This may also revitalize long blooming wildflowers.

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