Weed of Interest: Mugwort (*Artemisia vulgaris*)

Andy Senesac, Weed Science Specialist, Cornell Cooperative Extension of Suffolk County

As the season comes to a close and we look out over the fields and roadsides… what do we see? Mugwort! This is the perfect time of year to take stock of where mugwort has invaded and it is the best time for systemic herbicide application to be effective on this tenacious weed.

Mugwort (*Artemisia vulgaris* L.) is a broadleaf perennial weed that produces deep rhizomes (underground running shoots). Mugwort has long been a weed problem for nurseries in parts of the Northeast and many other parts of the world. However, Long Island's sandy soils and long growing season seem to particularly favor this species. In the last three decades, this weed has graduated from a marginally troublesome species to a major invasive weed that is rapidly expanding and colonizing new fields, turf, roadsides and natural areas. One of the major reasons for its expansion is the lack of effective control available in commercial horticultural production. As part of an IPM effort to manage weeds, it is important managers scout for small plants in the field and on incoming plant material. In the fall, mugwort produces small white flowers and tiny seeds (achenes) that are dispersed by the wind during the winter months. Mowing or cutting the flower stalks in early fall will help prevent spread by seed.

In general, cultivation and rototilling during nursery field production is not advised because the cultivating implements break up rhizomes and spread the weed down the rows. Managing this weed with herbicides is also a limited option. On Long Island, diclobenil (Casoron) and glyphosate (several Trade Names) are only partially effective tools for managing this weed.

The deep vigorous rhizomes allow it to escape full control because the herbicide is not fully translocated throughout. If late summer rototilling can reduce the size of rhizomes and bring them closer to the surface, then fall-applied herbicides may be more effective in preventing the smaller rhizomes from regenerating shoots the following spring. We conducted a field trial to see if rototilling mugwort-infested fallow land in late summer would break up large deep rhizomes and allow the resulting smaller re-sprouted rhizome pieces to be controlled better with fall applications of glyphosate. The results indicate significant improvement in control was seen when rototilling in mid-August was followed by mid-October glyphosate application.

Mugwort emerges as early as mid March. Photo by A.F. Senesac

Mowing mugwort does not slow it down very much. Photo by A.F.Senesac

Another major vector for spreading mugwort to new sites is the increased use of locally-produced compost. Even if compost is produced under the optimal conditions attaining temperatures of 150°-165°F, it appears some mugwort rhizome pieces can survive. Also, the late maturing seed will persist on the seed stalk even after killing frosts have occurred. This seed will be dispersed by the wind and often lands on finished, uncovered compost piles. It will either germinate immediately or remain dormant until the compost is field spread. Inspecting and removing any mugwort from the compost piles during the growing season will help minimize the spread of the weed. ●

Mugwort rhizomes often hitch a ride to new locations on root balls. Photo by A.F. Senesac

Seeds and leaves will persist on mugwort late into the season. Photo by A.F. Senesac