



COOPERATIVE EXTENSION SERVICE  
UNIVERSITY OF KENTUCKY COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

# Kura Clover

## Introduction

Kura clover (*Trifolium ambiguum*) is a recently introduced high quality perennial legume. Its spreading, prostrate growth habit resembles that of white clover; however, kura clover spreads by rhizomes rather than stolons. Once established, kura clover has the ability to fill in bare spaces, thus causing the stand to thicken.

Kura clover was investigated by the University of Kentucky Department of Plant and Soil Sciences for several years. Unfortunately, due to establishment difficulties, UK researchers have concluded that kura clover succeeds best farther north. The following information is provided for growers who would like to conduct their own on-farm trials.

## Marketing and Market Outlook

Kura clover has shown promise as a high quality pasture forage for either continuous or rotational grazing in some parts of the country. Researchers in the Midwest have examined the use of kura clover as a living mulch in such cropping systems as no-till corn. It is also considered to be an excellent crop for honey production, erosion control, and soil improvement. Unfortunately, problems with establishment make kura clover a high risk crop for Kentucky.

## Production Considerations

### *Site selection and planting*

Kura clover performs best on well-drained, fertile soil. It will not perform well on strip-mine sites. Its low seedling vigor makes



establishment challenging; however, proper seed bed preparation and seeding techniques improve results. It is critical that seeds be inoculated with the rhizobial inoculant specific for this crop, as this species of rhizobia is not indigenous to Kentucky.

Spring is the best time to seed kura clover, but later sowings can thrive when irrigated. The use of an herbicide may be necessary to prevent weed competition. Kura clover should not be sown with a companion crop, such as a small grain, and usually cannot be renovated into established grass stands. Vegetative establishment of kura clover can be successful provided sprigs are available, and that adequate rainfall or irrigation follows sprigging and sprigs are placed in good contact with the soil. Using sprigs that are obtained locally produces the best results.

Once established, stands should thicken and may persist under moderate to high grazing intensities.

Management practices are similar to those of white clover, except that kura clover only produces one flush of blooms per year. As with most

forage legumes, bloat can be a serious concern when cattle graze on pure stands, but a forage grass sown into established kura clover stands can help reduce this problem. This legume will go dormant during periods of drought, resuming growth once moisture is once again available.

#### *Pest management*

Weeds pose the most serious threat to this crop, especially during establishment when weed competition can result in stand failure. Refer to the University of Kentucky publication *Weed Control in Alfalfa and Other Forage Legume Crops* (AGR-148) for help in selecting an appropriate herbicide. Kura clover is apparently resistant to most insects and diseases, except for powdery mildew.

#### *Harvest and storage*

Kura clover stands slowly thicken with age. Not much production may be expected in the year of sowing and only a little in the second year. No grazing should be permitted during the first year. Kura clover blooms only once per season, beginning with the second year after sowing. The first crop may be harvested for hay or silage, but it will be lower yielding than alfalfa. The aftermath growth may be harvested by grazing. Kura clover should not be intensively grazed after September 15 to allow for the replenishment of root reserves and the maintenance of stands. If not overgrazed, stands should last many years.

#### *Labor requirements*

Production/management requires approximately 6 hours per acre.

## **Economic Considerations**

Due to the experimental nature of this crop and

its newness to Kentucky, cost and return budget figures are not available. However, the cost of kura clover seed can be twice that of alfalfa and more than twice as costly as red clover seed. The economic benefit of kura clover's longevity must be weighed against its higher establishment costs and lower yield when compared to other forage legumes.

## **Selected Resources**

- Forage Extension Web site (University of Kentucky) <http://www.uky.edu/Ag/Forage/>
- Kura Clover for Kentucky AGR-141 (University of Kentucky, 1997) <http://www.ca.uky.edu/agc/pubs/agr/agr141/agr141.htm>
- Weed Control in Alfalfa and Other Forage Legume Crops AGR-148 (University of Kentucky, 2003) <http://www2.ca.uky.edu/agc/pubs/agr/agr148/agr148.pdf>
- Understanding Forage Quality (American Farm Bureau Federation, 2001) <http://www.uky.edu/Ag/Forage/ForageQuality.pdf>
- Establishing Kura Clover Stands (University of Wisconsin-Madison, 2000) [http://www.uwex.edu/ces/forage/pubs/Kura\\_stands.htm](http://www.uwex.edu/ces/forage/pubs/Kura_stands.htm)
- Kura Clover (Purdue University, 1998) <http://www.hort.purdue.edu/newcrop/cropfactsheets/KuraClover.html>
- Kura Clover Living Mulch System (University of Iowa) [http://extension.agron.iastate.edu/soybean/production\\_kuracllover.html](http://extension.agron.iastate.edu/soybean/production_kuracllover.html)
- Utilizing Kura Clover in Pastures for Beef and Milk Production (University of Wisconsin, 2005) <http://extension.agron.iastate.edu/soybean/documents/Kuraclloverforbeefandmilkproduction.pdf>

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*Reviewed by Norman Taylor, Professor, Forage Breeding & Genetics (Issued 2003, Revised 2006, Revised 2010)*

*Reviewed by Ben Goff, Assistant Professor, Forage Legumes (Revised 2014)*

*Photo courtesy of Norman Taylor, University of Kentucky*

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