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New Crop Introduction: Kura Clover

– Will this crop work in CA?? The importance of being patient

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Introduction. Kura Clover (*Trifolium ambiguum* L.) is a low-growing, spreading perennial pasture legume. It's also called Caucasian, Pellett's or honey clover. Its primary potential use is as a pasture crop, but the first cutting in the spring might be taken as a hay or silage crop. It is unknown how widely adapted Kura might be in California, or its suitability to pastures or hay production.



Promises. Kura has a range of other characteristics which are quite positive and interesting. Once established it is very persistent, and can contribute to a pasture even under intense grazing—persistence is likely superior to red or alsike clover, and likely superior to alfalfa. Actually, since it produces vigorous rhizomes, it's persistence may improve over time. It reportedly works well in mixtures with grasses such as orchardgrass and reed canarygrass, but not timothy. Additionally, it produces a high quality forage and is very attractive to bees. Its yields are not likely to be superior to alfalfa, but are quite high compared with other clover species. Kura clover produces a lot on N through biological N₂ fixation. Kura also has the potential to contribute to innovative cropping systems, such as perma-seeding (corn with low-growing legume interseeded), organic systems, or soil cover for vineyards or orchard to contribute both biologically-fixed Nitrogen as well as a stable soil and below-ground biomass for carbon sequestration.

Limitations. Kura clover is VERY slow to develop and become established. Therefore, weed management is a challenge during establishment. It is highly prostrate and high in moisture, so it is not well suited as a hay crop. Kura is very frost tolerant, but production declines under hot temperatures (though we have produced kura under Central Valley Conditions). One of the main limitations nationwide is the ability to produce seed which limits the ability to envision a wider role for Kura clover in Midwestern or world-wide cropping systems. California is well-suited to determine whether seed can be produced here and whether it has a fit for our environments.

Experiments. These trials were instituted to determine forage potential of kura clover, and the possibility of producing seed in California. Trials were established at Davis, CA, El Centro, CA, and Tulelake, CA. We are working with clover breeders at the University of Minnesota to test their advanced lines and determine:

1. **The forage potential of Kura clover in three environments in California.**
2. **The potential for seed production.**

3. The potential for Kura clover to be adapted to irrigated pasture in California, as well as a cover crop in orchards, vineyards, etc.



Kura Clover is primarily a candidate for pasture production through applications in irrigated pastures in California. It has been proposed such as corn, since it is so persistent and a vigorous N₂ fixer (obtain fixation), as seen in these Wisconsin trials. (photo Ken Albright, Uni