

Establishing Kura Clover is tough but its persistence, winter-hardiness, grazing tolerance and high quality features keep producers and researchers working on better establishment methods.

Kura mixes well with all other grasses currently used for forage. Its only apparent limitation is its establishment. Kura clover seedlings germinate, emerge and develop the first three true leaves at about the same rate as other legumes, then leaf development slows and energy from photosynthesis for root and rhizome development is used. It produces few or no upright stems its first year and its short stature makes it susceptible to shading.

There are no “tricks” to establishing kura clover as the same steps recommended for other legumes apply. However, kura clover is less forgiving if the steps are not carefully followed. The basic goals are to insure good seed-soil contact, inoculation by appropriate rhizobia and control of competition after emergence.

Although stand density and forage production in the seeding year will be low, kura clover produces rhizomes and individual plants can spread from six to 12 inches per year after successful establishment. Initial thin stands have the potential to improve over time. So, time spent to maximize chances of successful establishment should be considered to be an investment providing returns for years to come.

Inoculation of Kura Clover with rhizobia can fix atmospheric nitrogen into a form useful for plant growth. This is essential for successful establishment and long-term productivity. Failure to put proper strains of rhizobia in contact with young kura clover seedlings will result in certain failure of the kura stand.

Field and Seedbed Preparation for Kura Clover consists of adjusting soil pH and fertility levels to those of red clover. Perennial weeds should be controlled the year before sowing. In the spring, prepare a firm seedbed free of large clods and weeds. Seed size is about the same as alfalfa but because it spreads by rhizomes, a lower rate can be used. Successful stands have been obtained with 5-8 pounds seed per acre. If seedbed conditions are not ideal, use the higher rate. Shallow sowing of kura clover is important and ideal depth is ¼ to ½ inch. Cultipacker seeders or drills with presswheels can be adjusted for proper sowing depth and packing for good seed-soil contact.

Kura Clover Mixtures with grasses have advantages whether used for pasture, hay or silage. Kura clover has very high protein and very low fiber contents so bloat is a serious concern when grown in pure stands for grazing. Kura clover also contains high levels of moisture and does not stand very well so is difficult to cut and wilt or dry for silage or hay when grown in pure stands. Grass not only aids bloat reduction but also in keeping semi prostrate legumes more upright and also speeds wilting or drying.

Wisconsin researchers have successfully sown and maintained kura clover with Kentucky bluegrass, smooth bromegrass, orchardgrass, reed canarygrass, and tall fescue. The appropriate grass(es) will depend then on soil conditions, intended use of the mixture and skill in managing some of the aggressive grasses.

Use of Companion Crops with kura clover establishment can result in additional forage in the establishment year and reduced soil erosion on hilly sites. Small grains should be sown at 1 to 1.5 bushels per acre and grazed when vegetative or harvested for silage in the boot stage. Mixtures of birdsfoot trefoil (2 pounds) or red clover (1 pound) with kura clover (6 pounds) have resulted in higher forage production during the establishment year without significant negative effects on long term kura clover performance.

Sowing Kura Clover is best done in spring or in late summer. Early spring (April 15) takes advantage of usually abundant moisture, but annual weed pressure can be severe. Late summer (July 15-Aug 15) sowing can become riskier because of unpredictable rainfall and impending freezing temperatures, but weed competition is avoided. Because kura clover will most often be sown with a grass, options for herbicides are limited. Control of annual weeds after emergence can be usually be accomplished by strategic grazing or clipping several times. If grazing is used to control weeds, it is best to put hungry animals onto the pasture and remove immediately after they have grazed weeds to desired level. Soils should be firm to avoid excessive damage to kura clover seedlings.

No-Till Seeding of Kura Clover into suppressed or killed grass sod is an alternative method if biennial or perennial broadleaf weeds have been controlled one to two years prior. Gromoxone Extra (paraquat) can be used to temporarily burn down existing grass in the early spring and the kura clover sown within 1 to 2 days after herbicide application. The grass will recover within 3 to 5 weeks and must then be controlled by grazing or clipping to minimize competition. This system will only work if summer rainfall is “normal” and if grass is controlled.

If the existing sod is killed with glyphosate (Roundup) then kura clover and the desired grass will need to be sown. The existing sod should be treated with glyphosate the previous fall to allow early no-till sowing. Spring treatment after vegetation has reached 6-8 inches will work, but will delay sowing. Use of a small grain companion crop in killed sod will reduce erosion. Competition from the small grain companion crop will have to be controlled by grazing or clipping.

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