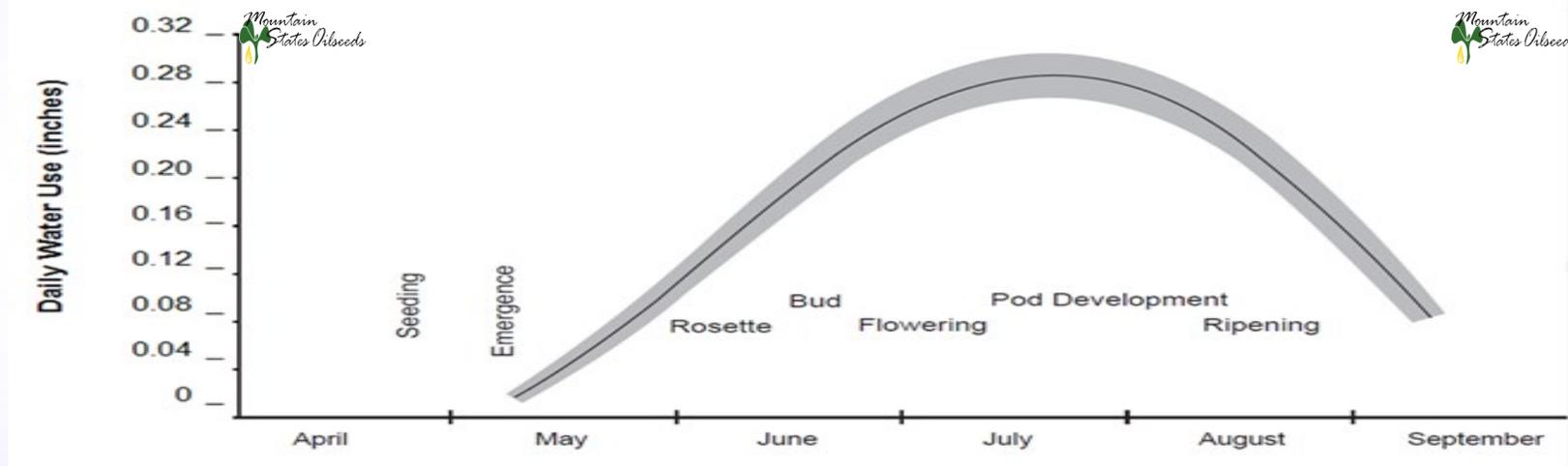


Flax is an excellent crop for irrigated crop rotation since it is not prone to Sclerotinia stem rot which affects canola, sunflower, peas, and beans. The major effect of irrigation on flax is to promote a second or third flush of flowers and to maintain adequate moisture for plant growth until all flowers have developed seeds.

In non-restricting soils (medium-textured soils that are amenable to lots of moisture), flax develops a short, branched tap-root, encompassing a rooting zone of 1 m (39 in.). Root development is nearly completed by the flowering stage. On irrigated land, flax takes approximately 70% of its water requirement from the top half of the root zone.

Over the growing season, crop water use may be as high as 41 cm (16 in.). During the seedling stage, water use will range from 1 to 3 mm/day (0.04 to 0.12 in./day), rising to a high of 7 mm/day (0.28 in./day) during the flowering stage. The critical water requirement period for flax is from flowering to just prior to seed ripening. Therefore, to maximize yield and oil content, adequate soil moisture must be maintained during that period.

Monitoring moisture use by soil moisture sensors, crop water use models, or direct measurement of crop use, is important if adequate soil moisture is to be maintained. However, the last irrigation of flax should be completed by the second week in August to ensure that the seeds ripen. Extending the last irrigation past this time will encourage continued growth in the crop, increasing the potential for frost damage and a delayed harvest. It may be necessary to irrigate in the spring for the crop to germinate. Unless soils are very heavy, a light irrigation of 15 to 20 mm (0.6 to 0.8 in.) prior to seeding is preferred to irrigation after seeding which can cause crusting and cooling of the soil.



FLAX

IRRIGATION

GUIDE

