

Hardy Kiwi – *Actinidia arguta*, *A. kolomikta*

Climate								Soil						
Min Optimal Temp (°F)	Max Optimal Temp (°F)	Min Absolute Temp (°F)	Max Absolute Temp (°F)	Growing Degree Days (50°F base)	Chilling Hours (32-45 °F)	Min Rainfall (in/year)	Max Rainfall (in/year)	Min pH	Max pH	Optimal Soil Texture	Absolute Soil Texture	Optimal Soil Drainage	Absolute Soil Drainage	Soil Depth (in)
-26 ^{e,f,g}	90 ^{e,f,o}	-50 ^{e,f,g}	95 ^{e,f,o}	2400 ^{e,g,p}	N/A	30 ^{e,p}	N/A	5.0 ^{e,f,g}	8.5 ^{e,f,g}	clay loam, silty clay loam, sandy clay loam, loam, silt loam, sandy loam, loamy sand ^{c,e}	clay, sandy clay, silty clay, loamy sand, silt, sand ^{c,e}	well drained ^{b,e,n}	somewhat excessively drained, moderately well drained ^{b,e,n}	24 ^{f,p}

	Key Months for Crop Development and Thresholds												
	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
Stage of growth (under current conditions)	Dormant	Dormant	Dormant	Dormant	Budbreak, Leaf Out ^{a,d,k}	Flowering ^{a,d,k}	Flowering, Fruit Development ^{a,d,k}	Fruit Development ^{a,d,k}	Fruit Development ^{a,d,k}	Fruit Ripening, Harvest ^{a,d,k}	Fruit Ripening, Harvest, Leaf Drop ^{a,d,k}	Dormant	

Key Cultivars: ^{h,i,l}

Hardy kiwi is composed of two species, *Actinidia arguta* and *A. kolomikta*. *A. kolomikta* is more cold hardy, rated to temperatures of -40°F, than *A. arguta*, which is reported to be hardy to temperatures of -25° to -30°F. However, *A. kolomikta* tends to be less vigorous than *A. arguta* and has been used mainly as an ornamental. As an emerging fruit crop, hardy kiwi is not well tested in Wisconsin. It is currently undergoing variety trials at Ohio State University and the University of New Hampshire. Below are cultivars available at nurseries in the U.S.

- 'Ananasnaya' (aka 'Anna', *A. arguta*, Russian variety, most popular variety and standard for other varieties, vigorous)
- 'Meader' (*A. arguta*, both male and female plants available)
- 'Geneva' (*A. arguta*, ripens early)
- 'Issai' (*A. arguta*, Japanese variety, only self-fertile cultivar, less vigorous than other cultivars, small fruit, fruit ripens unevenly in cluster)
- 'Red Beauty' (*A. kolomikta*, extremely cold hardy, tested to -40°F)
- 'Arctic Beauty' (*A. kolomikta*, male, extremely cold hardy, tested to -40°F)

Climate Risk Notes: ^{b,g,j}

While hardy kiwi is reported to be hardy to winter temperatures of -30°F (zone 4) or lower, its young shoots, buds, and flowers are vulnerable to late spring frost injury. Temperatures of only 30°F may be enough to kill flowers and significantly reduce or eliminate a fruit yield. Young plants are also susceptible to winter injury, and their trunks may need to be protected. Plants will become more cold hardy as they mature.

To produce fruit, hardy kiwis also need a long growing season of 150 frost-free days. Hardy kiwi may not be cultivated as a fruit in certain areas of Wisconsin where the growing season is too short.

Hardy kiwi is susceptible to phytophthora crown and root rot. This is mainly an issue when the vines are planted in heavy, poorly drained clay soils. Over irrigation can also lead to phytophthora root rot.

A. arguta has been reported as an emerging invasive species in the Northeast.

References

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