Life Span of Medicinal Plants

Robyn Klein

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It's really important that we know where the wild *Echinacea* in that bottle of tincture came from. But what's equally important is to appreciate the energy and life force that are in our herbal medicines.

This investigation into the ages of medicinal herbs all started because a botanist corrected me on a field trip when I told students that green gentian (*Frasera speciosa*) was a biennial. In fact, she told us, some individual green gentian plants are estimated to be 80 years old! Wow. Oh wait a minute!

Now, if we dig the root of such an ancient being and chop it up and make tincture out of it just so we don't have an upset stomach…well, I think maybe we should think about the ethics here. Certainly there are other herbs that would work just as well for upset stomach, which we can cultivate instead.

This got me to thinking though. How old is echinacea, trillium, and ginseng? Hmm. Next time you sit down next to a plant, you might just consider that it may be older and wiser than you. Say hello to start the conversation.

The Estimated Life Span (in years) of Some Plants

Species	Family	Common Name	Life Span	Citations
Populus tremuloides	Salicaceae	quaking aspen	1,000,000*	Mitton & Grant, 1996
Larrea tridentata	Zygophyllaceae	chaparral	9400-11,700*	Mabry, 1979; Vasek, 1980
Gingko biloba	Gingkoaceae	ginkgo	3000+	Del Tredici, 1991
Pteridium aquilinum	Dennstaedtiaceae	fern	1400*	Oinonen, 1967a
Lycopodium complanatum	Lycopodiaceae	club moss	850*	Oinonen, 1967b
Convallaria majalis	Liliaceae	lily of the valley	670+	Oinonen, 1969
Bouteloua gracilis	Poaceae	grass	400*	Fair, et al, 1999
Silene acaulis	Caryophyllaceae	silene	100-300	Benedict, 1989; Morris, 1998
Carnegiea gigantea	Cactaceae	saguaro cactus	175-300	Pierson & Turner, 1998
Narcissus pseudonarcissus	Amaryllidaceae	wild daffodil	120-180	Barkham, 1980
Ceanothus greggii	Rhamnaceae	red root	85-155	Zammit & Zedler, 1992
Teucrium scorodonia	Lamiaceae	germander	50-100	Hutchinson, 1968
Frasera speciosa	Gentianaceae	green gentian	60-80	Inouye, 1997
Chamaelirium luteum	Liliaceae	helonias	30-80	Meagher, 1982
Trillium ovatum	Liliaceae	trillium; beth root	72	Jules, 1995
Agropyron spicatum	Poaceae	grass	65*	Treshow & Harper, 1974
Panax quinquefolium	Araliaceae	ginseng	50-60	Anderson, 1993; Charron, 1991

Yucca filamentosa	Liliaceae	yucca	30-50	Massey & Hamrick, 1998
Clintonia borealis	Liliaceae	bead lily	20-50	Pitelka, et al., 1985
Helianthella quinquenervis	Asteraceae	aspen sunflower	40	Inouye, 1984
Balsamorrhiza sagittata	Asteraceae	balsamroot	40	Treshow/Harper, 1974
Cypripedium acaule	Orchidaceae	lady slipper	39+	Cochran & Ellner, 1992
Polygonatum multiflorum	Polygonaceae	Solomon's seal	35	Ernst, 1979
Aralia nudicaulis	Araliaceae	spikenard	30	Thomson, pers. comm. 1/98
Dactylorchis sambucina	Orchidaceae	orchid	30	Tamm, 1972
Anemone hepatica	Ranunculaceae	windflower	6-30	Persson, 1975
Listera ovata	Orchidaceae	twayblade	28	Tamm, 1972
Wyethia amplexicaule	Asteraceae	wyethia	28	Treshow & Harper, 1974
Veratrum tenuipetalum	Liliaceae	false hellebore	25+	Inouye, 1997
Dactylorchis incarnata	Orchidaceae	orchid	25	Tamm, 1972
Arisaema triphyllum	Araceae	jack-in-the-pulpit	15-25	Bierzychudek, 1982a
Corydalis aquae-geldii	Fumariaceae	corydalis	17-25+	Goldenberg, 1997
Corydalis caseana	Fumariaceae	corydalis	25+	Maloof, 1998
Hedysarum boreale	Fabaceae	sweet vetch	20	Treshow & Harper, 1974
Liatris cylindracea	Asteraceae	gayfeather	19	Schaal & Levin, 1976
Mitchella repens	Rubiaceae	partridge berry	15	Bierzychudek 1982b
Orchis mascula	Orchidaceae	orchid	14	Tamm, 1972
Balsamorrhiza macrophylla	Asteraceae	balsamroot	14	Treshow & Harper, 1974
Polygonatum verticillatum	Liliaceae	polygonatum	14-35†	Tybjerg/Vestergaard, 1992
Centaurea maculosa	Asteraceae	spotted knapweed	11-12+	Good, pers. comm., 2/16/98
Arnica cordifolia	Asteraceae	arnica	12	Treshow & Harper, 1974
Thalictrum fendleri	Ranunculaceae	meadowrue	12	Treshow & Harper, 1974
Primula vulgaris	Primulaceae	primrose	10-30	Valverde & Silvertown, 1998
Allium victorialis	Liliaceae	onion	10-15	Kawano & Nagai, 1975
Viola sororia	Violaceae	violet	10-14	Cook, 1979; Solbrig, 1980
Asarum canadense	Aristolochiaceae	wild ginger	10*	Cain & Damman, 1997
Ipomopsis aggregata	Polemoniaceae	ipomopsis	10+	Campbell, 1997
Allium ursinum	Liliaceae	onion	8-10	Ernst, 1979
Dipsacus sylvestris	Dipsacaceae	teasel	5+	Werner & Caswell, 1977
Astragalus utahensis	Fabaceae	milk vetch	3	Treshow & Harper, 1974

* The age of the rhizomes (genets) that connect the ramets in this clonal species.
** Age of the ramet
† Number of years which lateral buds have been found to be dormant for.

Appreciation
Thanks very much for all the help from botanists and biologists who were so patient and responsive to this herbalist. May you gain much merit from the life force of our green friends!

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