

Camelthorn: Ecology and Biology

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Camelthorn

Taxonomy:

Family = Fabaceae

Genus / species = *Alhagi maurorum*

Synonyms = *A. pseudalhagi*, *A. camelorum*, *A. graecorum*, *A. mannifera*, *Hedysarum alhagi*, & *Manna hebraica*

Camelthorn

Origin = Middle East including southeastern Russia, and northern Africa

Introduced to USA = about 1900, as wrapping material around date palms and probably as a contaminant of alfalfa seeds. The date palm material could have been parts of the roots or as seed in camel dung which was used to hold water in the palm cuttings

Camelthorn

Camelthorn is not on the noxious weed list in AZ, but is a restricted / prohibited weed

It is on the noxious weed list in CA, TX, NV, NM, CO, OR & WA according to UDSA (NRCS)

Camelthorn morphology

Camelthorn is a finely branched,
light green to yellowish colored
suffrutescent perennial about
18 inches to 3 feet in height



Camelthorn morphology



Camelthorn stems are smooth & glabrous

Stems are highly branched and terminate in a yellowish spine that is about $\frac{1}{2}$ inch in length

The leaves are simple, entire, glabrous and like the stems are alternate in arrangement

Leaves are about $\frac{1}{2}$ inch in length and about $\frac{1}{4}$ inch wide

Camelthorn morphology



Camelthorn has “pea” like flowers, that are about 1/2 inch in size

The flower color is pink to maroon in color

Camelthorn flowers in mid summer and the flowers are frequently visited by bees

Camelthorn morphology

Camelthorn has a pod as its fruit

The pods are constricted between the seeds

Normal seed pod “loading” is from 3 to 8 seeds

The seeds are small (2 - 3 mm), kidney shaped and about the size of alfalfa seeds



Camelthorn reproduction

- Literature suggests germination of camelthorn in nature is not common
- Seed germination of camelthorn is increased if the seeds are passed through the gut of an animal (acid scarification?)
- In the lab at ASU Polytechnic, camelthorn seeds germinated at about 40 % at a constant temperature of 80 F, a recent germination test had no seeds germinate after 5 days at 70 F

Camelthorn reproduction

Camelthorn reproduces vegetatively from sprouting of the crown tissue and from root material

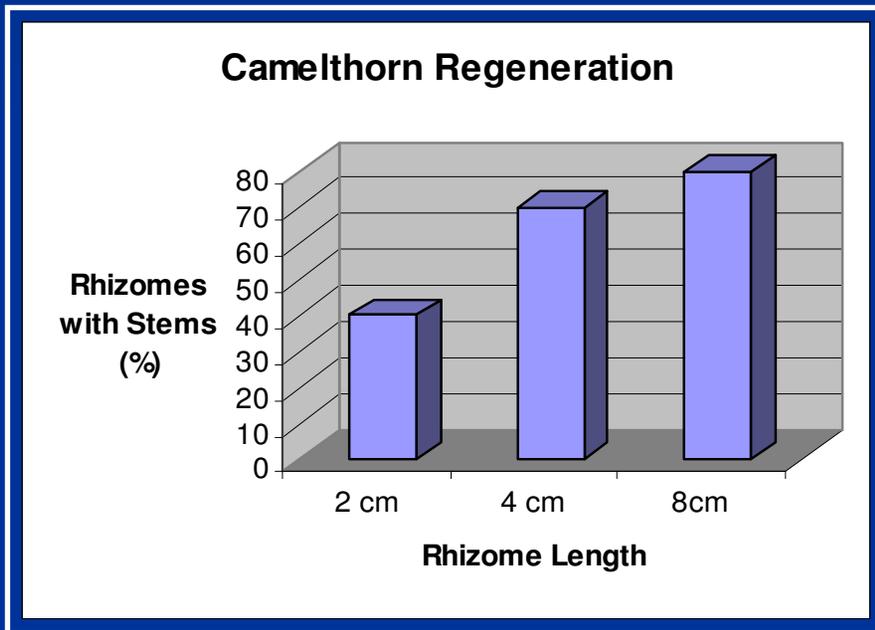
Camelthorn roots are common to depths of 3 feet and there are reports of root to greater than 10 feet in depth



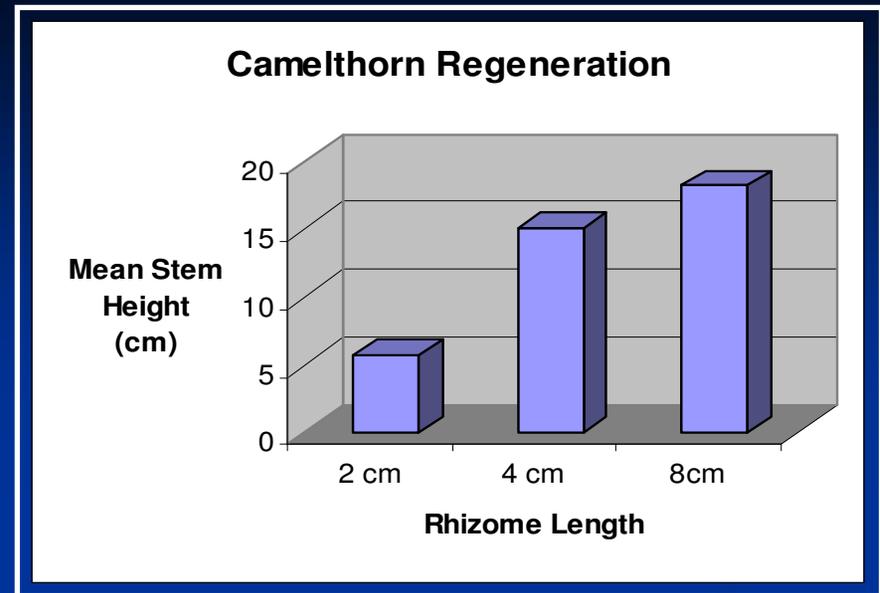
Almu rhizomes at 1, 2 and 4 inches summer 2007, plant ages = 66 days from planting

Camelthorn reproduction

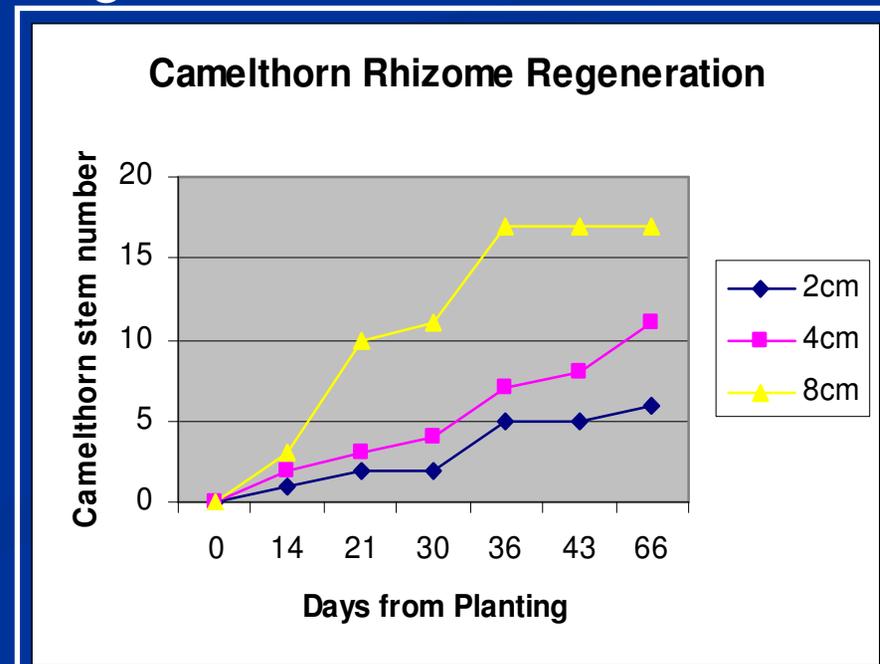
A



B



C



Camelthorn invasion

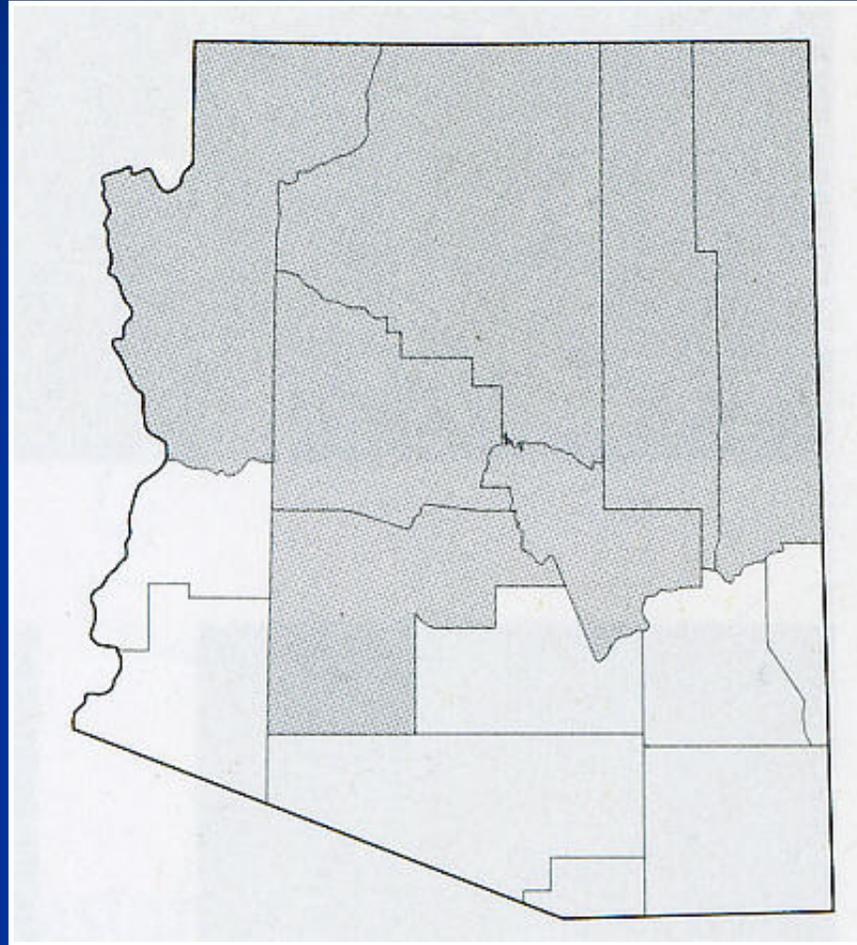
Abandoned field at Dry Lake,
northcentral AZ, clonal growth of
camelthorn



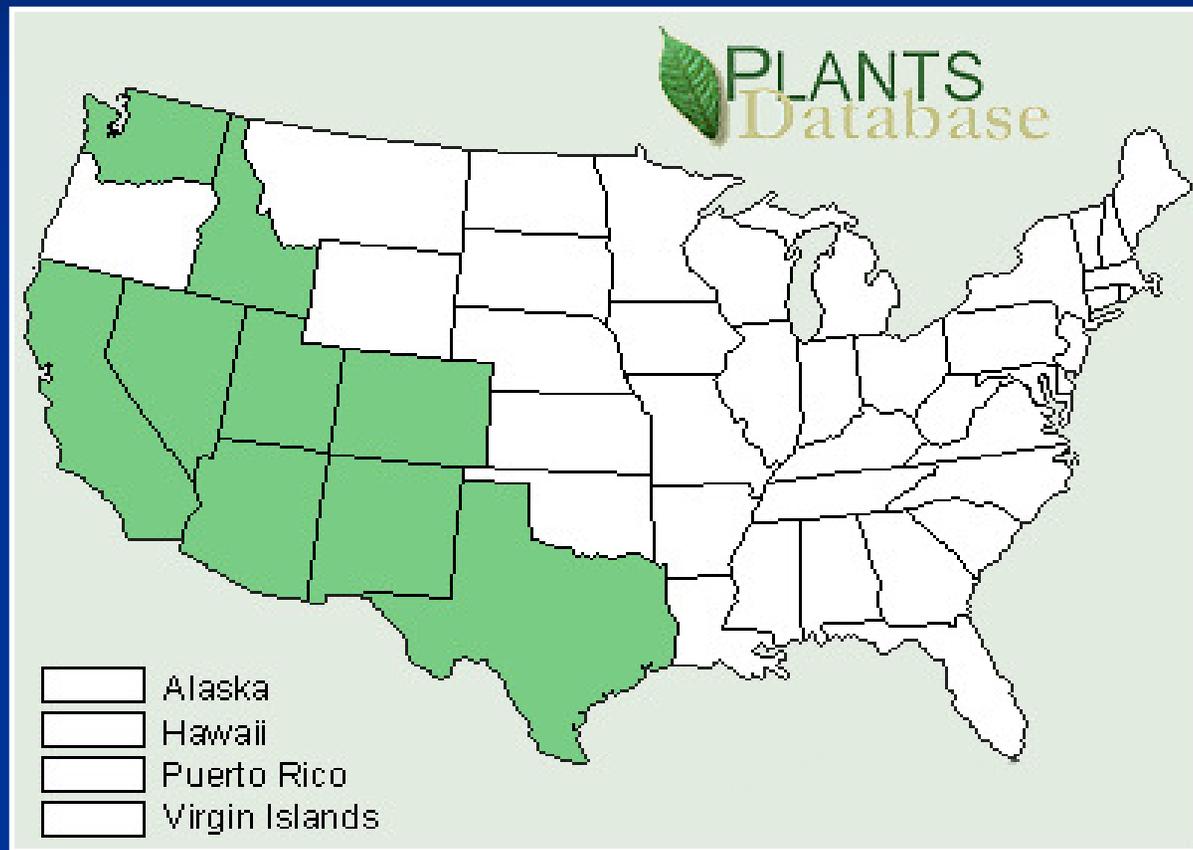
Camelthorn reproduction

- Camelthorn can be spread along waterways during flood events by washing plant parts, especially the roots to new sediment deposits
- Camelthorn canopies have also been reported to break from the surface crown and roll across the countryside like a “tumbleweed”

Camellthorn in Arizona



Camelthorn in USA



Camelthorn invasion

- Displaces native plants in sites of invasion, and seems to be tolerant to saline & alkaline conditions
- Can invade human residences: (a) lifted tiles in a kitchen, (b) found under carpeting, (c) found in expansion joints in a machine shed (d) reported to be entering a house between outside wall and ceiling, and (e) in bathroom light fixtures

Camelthorn invasion



Camelthorn
along and
in a road
north east
of Winslow
and near
Dilkon

Reduces
road
longevity
and
increases
repair costs

Camelthorn

- Is used as browse forage by domestic livestock, in its home range it is favored by camels
- In its native areas, is used in folk medicine, and exudes a milky / sugary substance = manna
- Used by bees for making honey, some times in the supermarkets, one can find honey of camelthorn source

Questions? Comments?

