N
© 2007 Europa Technologies
Image © 2007 DigitalGlobe
Google
Pointer 27°52'19.21" S 64°14'26.59" W elev 585 ft Streaming 100% Eye alt

When pruning cactus with cactoblastis damage, approximately 14 days after Sevin application(1 g/L carbaryl) with a penetrant, many of adult larvae inside the cladode were dead.

It is possible that slow diffusion of the carbaryl into the cladode eventually killed the larvae.

It would seem prudent to measure diffusion of various insecticides (with the aid of radioactive C^{14} tracers) from the cladode surface to the interior as influenced by new penetrating surfactants.

The pyrethroid cipermetrina (Cypermethrin) when used in Argentina caused significant irritation of the skin. Due to 3-4 m heights of fruit cacti in Argentina and the lack of resources of local people for adequate protective clothing, it is important to choose an insecticide with minimal dermal irritation.

For this reason, Sevin, with virtually no dermal irritation, was routinely used for cactoblastis control.

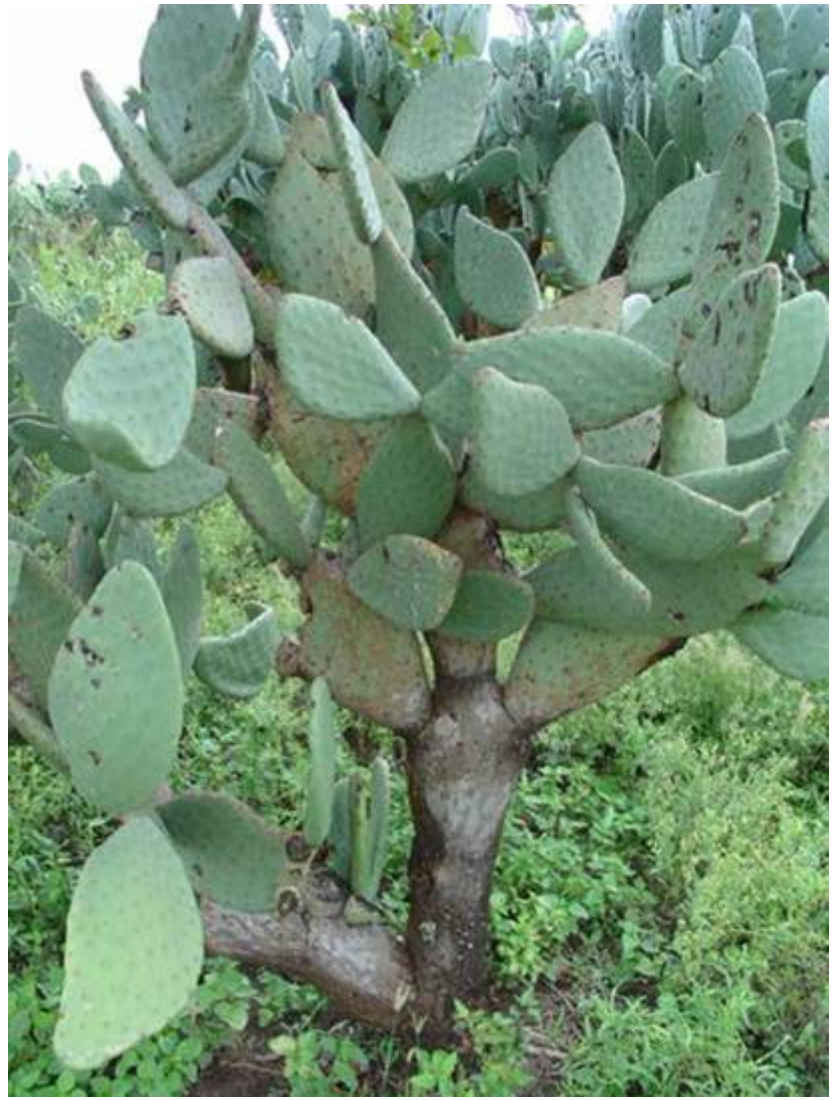
Sevin was routinely used in approximately 3 applications in the spring (with the last application 20 days prior to fruit harvest) and the fall at 1 g/L carbaryl with a penetrant.

In addition to control of Cactoblastis, an insecticide should also provide control of

Cochineal

Pad thickening (mycoplasma insect vector)

In addition to the Argentine, native cactoblastis resistant species, O quimilo, Ricardo Zapata of Universidad Nacional de Cordoba states the cactus below are also resistant. They will be crossed with a common Argentine fruit variety and the seedlings returned for genetic analyses of resistance.



Water Use Efficiency

Opuntia ellisiana

Fourth year dry weight growth	17,600 kg/ha
Rainfall	662 mm
Soil evaporation	214 mm
Runoff	143 mm
Water stored in plant (170,000 kg/ha)	17 mm
Transpired	285 mm

Water use efficiency=162 kg H_2O per kg dry matter

Santa Gertrudis cattle at Ranch of Bill Maltsberger, Cotulla, Texas eating wild cactus after spines been burned off.

In the extended drought in northern Mexico from 1993 to 1996, more than 650,000 cattle died (Journal Professional Association for Cactus Development 2: 3-9), but ranchers with cactus did not suffer as great as losses as those who supplies of cactus ran out and the reproduction rates and animal production levels were greater for animals that received cactus supplements

On several Texas sites, Opuntia comprised more than 50% of the deer diet in the winter (Southwest. Nat. 24:297-310: J. Range Manage. 32:175-178), about 90% of the winter diet of the collared peccary (Gallagher, M.S. Thesis, 1981, Texas A&M Univ) and was very important in the diet of the Texas tortoise (Bull. Fla. State Museum 13:141-203).

Should a long prolonged drought occur in northern Mexico and southwestern United States at the same time as extensive destruction of wild cactus due to Cactoblastis, the effects on both wildlife and domestic stock (especially in Mexico) could be devastating ecologically and financially with losses in the hundreds of millions of dollars.