

Trichocereus pachanoi - San Pedro Cactus

- Cactaceae - Temperate and warm zones of South America



Though best known as "San Pedro," *T. pachanoi* has numerous local titles. Its history dates back to at least 1300 b.c.e., and ceramics and textiles suggest it was well known during the Chavín, Chimú, Nasca, Salinar, and Moche periods. Its present day use by curanderos in healing ceremonies in Peru, Bolivia, and Ecuador has become altered by the integration of Catholic themes with long standing indigenous beliefs.

T. pachanoi is reputedly made into the hallucinogenic beverage "cimora" in Huancabamba, Peru, and is used by curanderos for divination, the diagnosis of disease, and to "make oneself owner of another's identity." Cimora may include the cactus *Neoraimondia macrostibas*, *Iresine* spp., *Brugmansia* spp., *Datura* spp., *Pedilanthus tithymaloides*, and *Isotoma longiflora*. Though the San Pedro ceremony usually contains other plants, cimora should not immediately be assumed to contain *T. pachanoi*. The most recognized additives to San Pedro and/or cimora include the tropane containing *Brugmansia* and *Datura* species, but these appear to be used only for especially difficult cases needing further

divination, and are usually taken only by the curandero.

An additional aspect of the ceremonies of Huancabamba is the use of "hornamo," a purgative herb. Hornamo is said to purify the participants, possibly through vomiting. Though most affiliated with *Valeriana* species, there exists a lengthy list of plants with some form of hornamo used in their vernacular titles. All such herbs are reputedly prepared separate from *T. pachanoi*, but this may not always be the case.

Nicotiana species are also commonly included within the San Pedro ceremonies, often as a liquid extract that is nasally ingested prior to the drinking of the San Pedro tea. There has been some suggestion that San Pedro is also used through nasal ingestion, but this route of administration may have its source in the Arts & Entertainment Television broadcast of the program, *Ancient Mysteries: Ancient Altered States*. During this program the ingestion of San Pedro was discussed alongside video of participants nasally ingesting a liquid. It appears the narration mistakenly represented this liquid as San Pedro while failing to discuss the standard oral ingestion of *T. pachanoi* and the well known nasal use of *Nicotiana*. If San Pedro is used at all by this method, then most likely it is only a ritualistic act. The volume of mescaline in such a tea would not be concentrated enough so as to prevent the participant from having to nasally ingest a truly prohibitive amount. But of course if one considers the San Pedro ceremony as a purely ritualistic act, as often appears to be the case, then the nasal ingestion of a light concentration of San Pedro tea would not be out of the question.

Generally, westerners who have participated in the San Pedro ceremonies of Huancabamba, Peru, rarely feel the full psychoactive potential of the mescaline present in *T. pachanoi*. This is often a simple matter of dosage, something the curandero holds sway over as much as the Roman Catholic priest does of the Eucharist (Wade 1983). And like the taking of the Eucharist, the ingestion of San Pedro has largely become a ceremonial act in which the ritual performed plays a larger part in the healing than does direct access to the spiritual otherworld.

Due to such ceremonial and ritualistic use of the species, it may be possible that *Armatocereus laetus* and *Espositoa lanata*, other cacti reputedly used by similar means as *T. pachanoi* in Huancabamba, Peru, may not have psychopharmacological effect.

Trichocereus bridgesii, *T. macrogonus*, *T. pachanoi*, and *T. peruvianus* are all closely related, some even believing they are variations of a single species. Some might even include a number of other *Trichocereus* in this "sliding scale." Flower and fruit similarities suggest to some that *T. pachanoi* and *T. peruvianus* are mere variations of a single species, but there is still disagreement on the subject. It has even been suggested that *T. pachanoi* is a cultivar of either *T. bridgesii* or *T. peruvianus*, but it continues to be the general belief that all are their own independent species even though apparent intermediary plants exist. It seems likely that such intermediary plants are the result of the importation of *T. pachanoi* into other areas due to its long standing ethnopharmacological value. *T. pachanoi* is most likely a selectively propagated species and not a selected strain of *T. bridgesii* or *T. peruvianus*.

T. pachanoi is by far one of the best grafting stocks and is often the base stock seen in photographs within numerous publications. Rib number is quite variable, usually ranging from 5 to 8. Occasionally the sacred 4 ribbed "Cactus of the Four Winds" can be observed, but 4 ribbed growth is an anomaly as the addition and subtraction of ribs during growth is quite common. The standard diameter of the species is 4," and though 8" specimens have been observed this is probably only in regard to old base material supporting large, multi-branching, plants. *T. pachanoi* is considered largely self-sterile and therefore it appears necessary to use different genetic stock for seed production. Much of the stock available in the US market is of a single clone introduced by Curt Backeberg, but *T. pachanoi* "North Peru" and "Ecuador" have been introduced into the United States market, and it will be interesting to see their variation from the Backeberg clone. Presently these two variations appear to be much more similar to *T. peruvianus*.

T. pachanoi can form crested plants with an elongated "fan-like" apex or monstrose specimens that have irregular growth due to the fasciation or fusing of tissue. There also appears to be a "minima/prolifera" form of *T. pachanoi* that has smaller growth while tillering profusely. It is my personal belief that all of these irregular forms might be more properly classified as "short spined" *T. peruvianus*, a plant often confused with *T. pachanoi*, but which may be an undescribed species. As with most cacti, variegated *T. pachanoi* seem to be quite rare. Recently a number of interesting *T. pachanoi* hybrids have been developed, particularly by Sacred Succulents.

The use of *T. pachanoi* as a replacement sacrament, or in grafting, by members of the Native American Church (NAC) could help preserve the natural populations of *L. williamsii* in the United States, but such propagation

techniques are not presently accepted by the NAC.

Local names include:

"Achuma," "aguacolla," "cardon," "cimarrón," "cimora blanca," "cuchuma,"
"gigantón," "huachuma," "huachumo," "huando hermoso," "San Pedrillo,"
"símora." (Note 2)

Contains the following alkaloids:

Mescaline (over 25 mg per 100 grams of fresh plant)

3,4-Dimethoxyphenethylamine

3-Hydroxy-4,5-dimethoxyphenethylamine

3-Methoxytyramine

4-Hydroxy-3,5-dimethoxyphenethylamine

Anhalonidine

Hordenine

Tyramine