
Seed for Tepary Bean

When scientists study how plants resist drought, they sometimes use the tepary bean as a model, according to graduate student Richard Pratt at Purdue University. Tepary beans are cultivated by Indian groups in the Sonoran desert of western North America. They thrive in arid regions which receive heavy but infrequent rains. They need ample moisture to germinate and advance growth to flowering. After flowers form, little additional moisture is needed. Teparies enjoy high temperatures and bright sunshine but are intolerant of frost and waterlogging. They require night temperatures over 46 degrees F (8 degrees C). In certain types of desert soils, after one of those rare times when the ground is flooded, the beans can reportedly be planted and produce a crop with no further rainfall. Richard showed me results of yield trials where he compared the effect of drought on teparies and on common beans. As he cut back on water, the yield of common beans decreased steadily whereas the yield of tepary beans actually increased up to a point before they also eventually dropped off.

Richard believes that tepary beans have potential for planting near the end of the rainy season, but early enough that the plants can get a good start before the rains stop. It is quite possible that they would then produce a crop during the dry season when few other food sources are available. Dr. Leon a CATIE says that tepary beans can be found in the market on the Pacific coast of Mexico. He has read that they were introduced a cover crop in the Sahel of Africa, and that people on their own initiative began eating the bean. (I would appreciate more information on this from our African readers.)

Dr. Hidallgo at CIAT believes the relatively low yield and a flavor that is inferior to common beans are the main problems with commercialization. Disease is a problem sometimes when introduced into a new area and they are "devastated" in the humid tropics. But he added that, "As a crop for subsistence farming, its potential is excellent. It doesn't stop growing even when it flowers. So if a stress occurs after the first flowers, it has a high capacity to recuperate."

We have limited quantities of both brown and white tepary beans and will be interested in making them available to you for trial if you believe your region may be suitable. Our recommendation is that they be tried (1) near the end of the rainy season or (2) in regions with low humidity most of the year. Where other beans can be grown all year there is no advantage to growing teparies. Possible drawbacks include: bean is smaller than common bean; taste is different (but has been accepted in some cultures); yields will be lower than from common beans; overcooking results in flatulence (gas); and the beans become hard in storage. But if you can get a bean crop when regular beans would not produce, all these

objections can be worked around. There is also considerable variability. If they do well for you, we can help you locate other varieties in the future in hopes of overcoming some of these problems.

When you request seed, let me know if there is a strong color preference for beans in you area. Richard gave me a small amount of seed for five other varieties which we are currently growing. Some of these might be nearer the color that you would need. If any of you have tried teparies already, please write me with a summary of your experience.