

## GROWING VARIETY 1308 FOR YEAR AROUND NOPALITO PRODUCTION

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I'm a cotton and grain sorghum farmer from Sinton, Texas. Today I will discuss growing variety 1308 for year around nopalito production. Variety 1308 is a native of a high rainfall area of the state of San Luis Potosi, Mexico. From the field greenhouse at the Texas A&I University at Kingsville, it was selected by Dr. Peter Felker for test planting production capabilities.

Our first planting was March of 1990. After 18 months of culture and observation, the prolific smoothleaf variety 1308 has emerged as one of the best prospects for commercial nopalito production. This plant exhibits fast growth, uniformity in size, less mucilage, desirable flavor, and excellent green color. The tender leaves are for the most part free of spines and glochids.

Test plantings observed locally indicate that 1308 could produce 10,000 lbs. per acre annually. A first year planting of 400 leaves yielded 20,000 leaves. The projected second year planting of 12,000 leaves could yield 500,000 leaves by fall.

### Planting Instruction

1. Prepare an elevated, well drained, fertile area for planting.
2. Cut leaves from adult plants.
3. Allow leaves at least four days to heal before planting.
4. A single whole leaf can produce as many as 50 leaves in one growing season.
5. Place the bottom one-third of the cactus pad with flat sides facing east and west. Press soil firmly to the pad for fastening rooting.
6. Water may be applied to this method of planting but is not necessary.
7. Apply fertilizer after plants have started growing. An application of a formula such as 5-10-5 is adequate. Barnyard fertilizer is a good companion fertilizer because of organic content.
8. Research the botanical living conditions in which cactus grow. Duplication of these conditions plus temperature control and drip irrigation can produce outstanding results.

### Growing Instruction

1. Keep growing area free of weeds and grass. Roundup may be used by covering cactus plants during spraying.
2. Allow plants to grow upright by harvesting some of the side tender leaves.
3. Leaves may be harvested for desired taste. Leaves cut in the morning have a slight sour flavor. Evening cut leaves have a mild taste.

4. Commercial plantings can be fertilized and drip irrigated for highest potential yield. A new crop of nopalitos from bud to eatable leaf can be harvested every 15 days. If harvest is staggered, nopalitos can be cut in regular time intervals to fit the market demand.
5. Planting a windbreak is a desirable for better growth, less wind scar, and uniform leaf size.
6. In preparation for winter, tall growth should be pruned back (whole branches of pads should be removed and be allowed to dehydrate in preparation for spring planting).
7. Variety 1308 will freeze and must be protected. When weather forecasts predict below freezing temperatures, plants and any removed leaves should be covered with hay. In the event of imminent hard freeze, place a protective cover over plants with hay on top for extended protection.
8. Cacti covered in the method described above will enter a dormant state caused by removal from sunlight and reduction of temperature below 80 degrees.
9. Cutting leaves and storing them in a shelter is another method of freeze protection.

### Tunnel System

The environmental control offered by the tunnel system has many advantages:

1. Freeze protection.
2. Extending growing period.
3. Drip irrigation.
4. Weed reduction.
5. High concentration of plants.
6. Maximum production in a small space.

Protective tunnels may be constructed by various methods. For instance, a series of arched frames may be made with 10 ft sections of 3/4 in. PVC pipe. These pipes are secured by placing the ends of the pipes over iron rods driven into the ground on both sides of the 4 foot rows. These arched pipes should be placed 4 ft apart. The addition of side boards would be helpful in maintaining an elevated row. Lighting for warmth is desirable during below freezing temperatures.

There are marginal production areas on almost every farm. These acres could be planted to cactus. The corners on irrigated farms are a good example. Barnyard fertilizers, drip irrigation, and variety 1308 can make these bare spots pay their way.

Variety 1308 could be used as a fast growing companion crop in fruit orchards in the Rio Grande Valley. Cactus pads harvested weekly from mid-February through November would provide a beneficial cash flow until orchards reach their full production.

The phase we are in now is selling planting stock. Since the Houston Chronicle article came out on June 2, 1991, we have sold numerous orders by mail statewide for home nopalito production. At least ten orders went to people interested in commercial production. We have at the present time enough planting stock to supply many new growers. These growers are needed to provide an adequate source of vegetable nopalitos for the fresh market. Out test marketing will begin after we feel new commercial growers have an opportunity to buy planting stock.

Nopalitos have brought as much as 70 cents wholesale per pound in California. The local supermarkets in Sinton paid 65 cent wholesale per pound for nopalitos in April 1991. The fiesta Markets in Houston were selling 2 nopalitos pads for one dollar retail in June 1991. When I visited a Fiesta Market in San Antonio in July 1991, nopalitos packaged were bringing \$1.79 per pound. Whole pads were bringing 79 cents per pound retail. The whole pads on the shelf were in sad shape. They must have been culls. It is very important that we deliver only uniform quality produce to the markets.

Congress recently appropriated funds for cactus research. We need to request part of this financial help in building a marketing package.

In conclusion, my observation is that if we as individuals can perform as well as variety 1308, we will achieve success.