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Final

**Subject:** Peanut Breeding **March 13, 2007**

**Title:** Puerto Rico Seed Increase of a New Line for Release

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**Final Report:**

Funding was appropriated to increase the new variety Tamnut OL06 in the 2005-2006 Puerto Rico winter nursery. Approximately 200 lbs. of seed from a 2005 seed increase at the J. Leek Research farm was sent to Puerto Rico and 2.9 acres were planted during the first week in December 2005.

The Puerto Rico increase was harvested in early April and yielded approximately 10,800 lbs for an average of 3700 lbs./acre. This was the highest yield that many of the workers had ever seen on their farm. The seed was shipped straight to the shelling plant and after shelling and treating, it was planted south of Seminole, Texas on approximately 67 acres.

The seed increase in Seminole was planted about 2 months after being harvested from the Puerto Rico winter increase and this resulted in some fresh seed dormancy which occurs with almost any peanut if it is replanted too quickly after harvesting. Additionally, the increase was planted later than normal for the West Texas growing region, so the plants were still in the early stages of growth when they were exposed to high daytime temperatures and moisture stress. The producer's irrigation well also went down early in the developmental stages of growth for the increase, so Tamnut OL06 was under stress during the first part of the growing season.

Seed size and yield was affected by all of the stress associated with the seed dormancy, late planting, heat stress, and drought stress. However, the main objective of the project was accomplished as we were able to harvest approximately 287,000 lbs of Farmer's Stock which should shell-out enough seed to plant 1,500 acres in 2007. We would only be planting about 15 to 20 acres of seed increase in 2007 without the support of the NPB/TPBB to plant and harvest the Puerto Rico winter increase

Tamnut OL06 was approved for release by the Plant Release Committee of the Texas Agricultural Experiment Station and approved for seed certification by the State Seed and Plant Board in May of 2006.