Center for Value Added Seed Technology

Dr. Grant Vest/Utah State University/Logan, Utah

Established center in 1991. The main focus of CVAST is to produce value-added crops using forefront plant biotechnologies and conventional plant breeding.

Overview

1994-95 State Contract	$70,000
Matching Funds	$329,788
Cumulative	$613,454
Center Related Jobs	13.3
Industry Jobs Created	0
Benefiting Utah Companies:	
1994 Spin-off Companies	0
Cum. Spin-off Companies	0
Patents Applied	1
Patents Issued	0
License Agreements	0

Technologies

- **Conventional plant breeding** of exotic wheatgrass forage and turf plants collected worldwide.
- **Molecular genetic marker** technology to move genes of interest from weedy wild grass species into commercial forage and cereal crops.
- **Plant tissue culture** to mass produce unique agricultural, horticultural and forestry plants.
- **Microbiology and plant physiology** to develop improved methods for plant genetic engineering.

Status

- **Conventional plant breeding:** In addition to turf cultivars now under development, four forage grass cultivars are being prepared for release within the next year. Market surveys are underway.
- **Molecular genetic marker** technology: produced through plant breeding an interspecific population of wild Australian wheatgrasses.
- **Plant tissue culture:** New tissue culture media were developed.
- **Microbiology and plant physiology:** Wheat plants obtained using our genetic engineering procedures were evaluated by an outside lab and found not to contain transgenes. Withdrew patent. Further research being conducted.
- **Working with SBDC** consultant to establish commercialization plan.

Economic Impact

- **Turf and forage** grass cultivars released by CVAST will be protected under provisions of the Plant Variety Protection Act. Several companies have expressed interest.
- **Collaborating with INEL** to
  1) develop bioreactors
  2) improve genetic engineering procedures for wheat and cotton.