

PM Program Issue

Whether Source ID and Selected Class releases should be recommended for conservation?

Why not?

1. No performance testing beyond PMC
2. Range of adaptation unknown

Importance of Inter-Center Strain Trials in the PM Program

Achieving Excellence in the PM Program

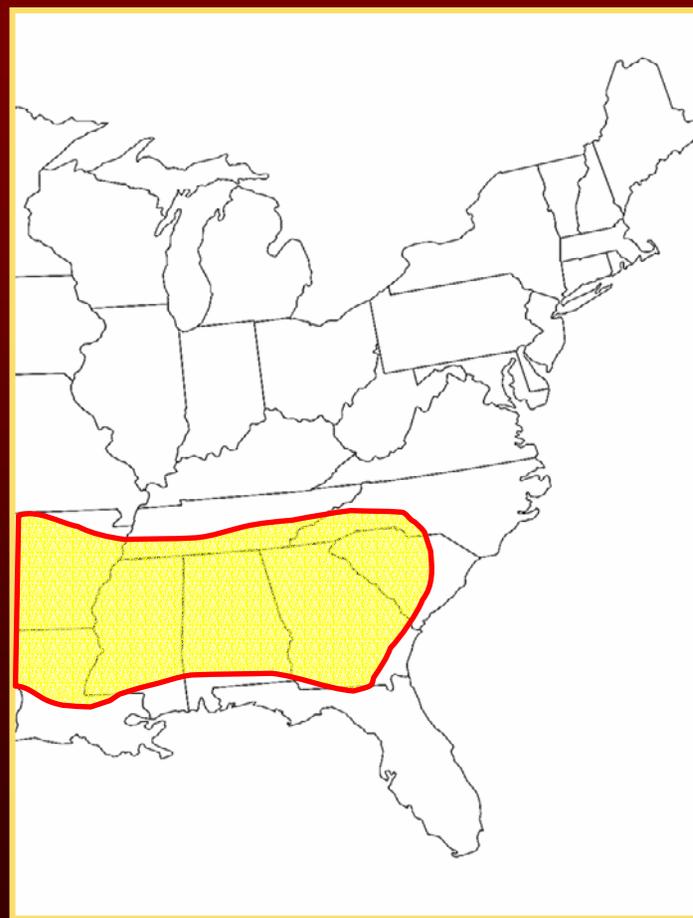
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Jamie L. Whitten Plant Materials Center
Coffeeville, MS

Overview

- Rediscover the importance of Inter-Center Strain Trials
- Why ICST are important in cultivar and **pre-varietal releases**
- When and how to implement ICST
- Examples of ICST
- Generate enthusiasm for ICST

Area of Adaptation

- Range of adaptation required for cultivar development
- Essential for long-term pre-varietal releases such as tested class
- Important for Source ID and Selected class releases with Cultivar potential



Range of Adaptation

- Off-Center Evaluations
- Field Plantings
- Inter-Center Strain Trials



Eastern gamagrass trial in MS.



Conservation field trial in MT.

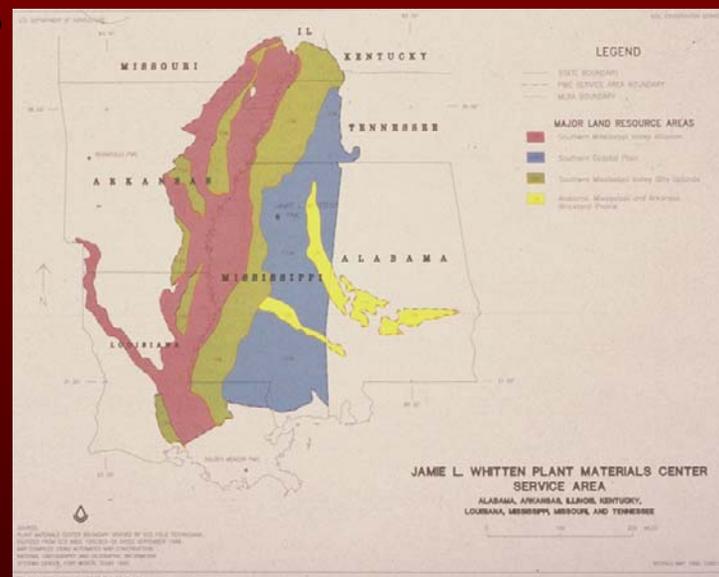
Inter-Center Strain Trial (ICST)

- Controlled, repeatable evaluations where **scientific methods** and **experimental design** are used to study plants and cultural techniques at **PMCs**.
- Used to determine **regional** plant **performance** and **adaptation**.
- Evaluate **aggressive** or **invasive** properties of plant **selections** outside releasing PMC service area.

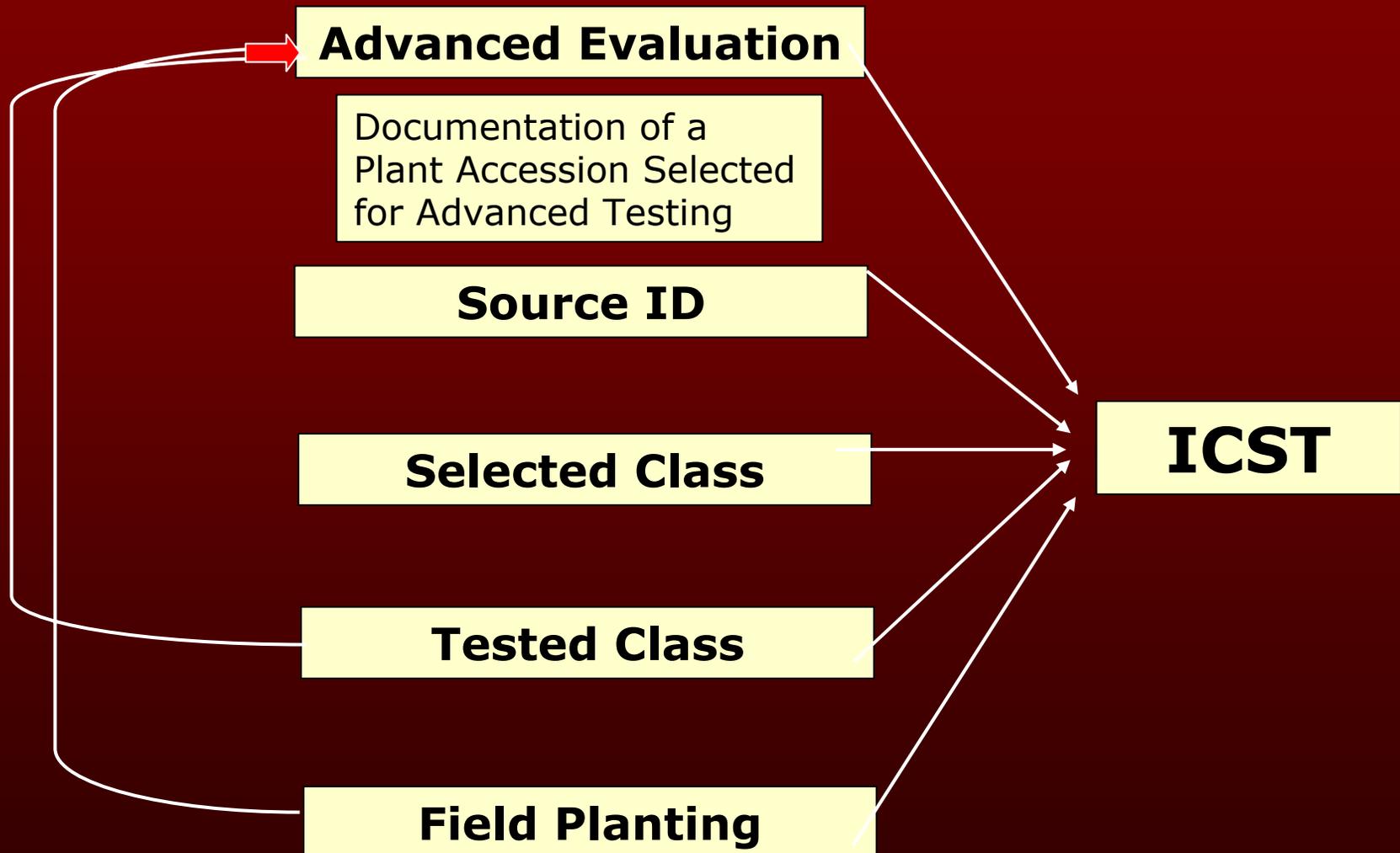
Part 542- Plant Science Reference Section NPMM, 3rd ed., June 2000

Value of ICST

- Regional adaptation, performance, invasiveness
- Investigate new plant species for potential conservation use in other PMC service areas
- Beginning phase for elevating pre-varietal releases to cultivar



When to Initiate ICST?

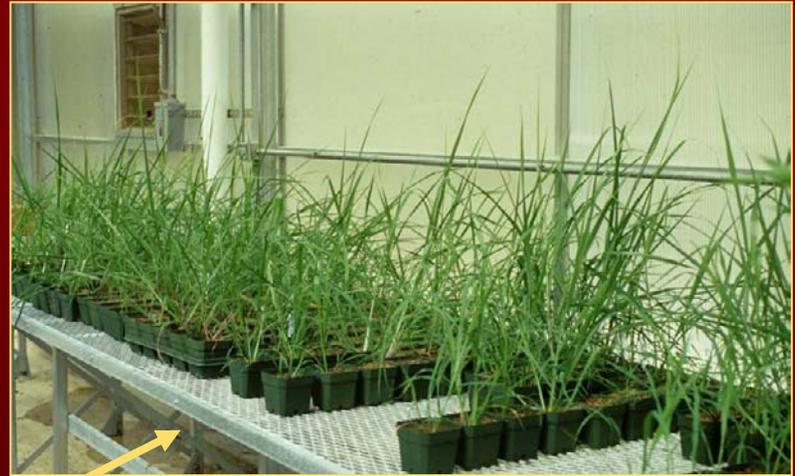


Initiating ICST

- Prepare Study Plan (Regional PM Coordinators) (PMC/PMS)
Include other PMCs/PMSs in study plan development, if applicable
- Prepare evaluation form and selection criteria
Documentation of Plant Accession Selected for Advanced Testing
- Contact PMCs in area of anticipated use or adaptation
- Send seed or vegetative stock along with study plan and evaluation form to participating PMCs

Data Collection

- Standard performance data for adaptation (subjective ratings)
- Quantitative data
- Experimental design (may or may not be needed)
- Standard for comparison, if available
- Establish plots
- Receiving PMC evaluates plants annually and sends results back to PMC



Partridge Pea ICST

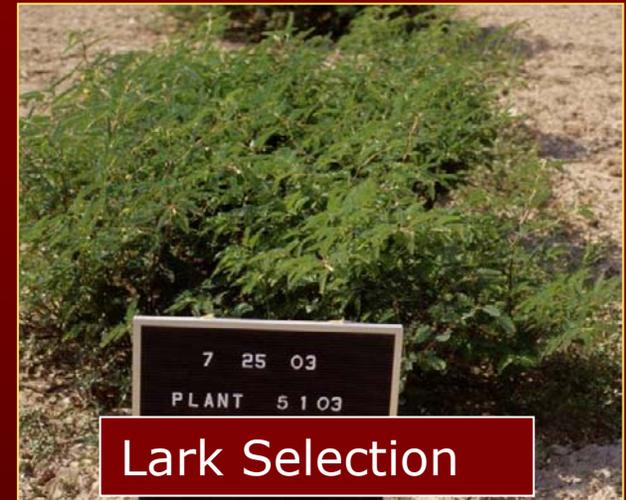
- MSPMC, Lark Selection
Selected class, 1997
- KSPMC, Riley germplasm
Source ID, 1999
- KCPMC, 'Comanche'
Cultivar, 1985

annual, native, warm season legume



Partridge Pea ICST

- MSPMC and KSPMC
(study plan, evaluation criteria)
- Replicated trial at 9
PMCs
- 3 year study
- Support data needed
for Lark Selection
and Riley germplasm
for cultivar release



Eastern Gamagrass ICST

- 13 “elite” gamagrass accession from 6 PMCs (NM, KC, ET, AR, MS, FL)
- Yield, quality and persistence
- Identify superior accessions for cultivar release
- Integrity to Technical Notes/FOTG standards



Virginia Wildrye ICST?

- Virginia Wildrye (*Elymus virginicus*) Releases:
 - South Texas
 - East Texas
 - Jimmy Carter
 - Elsberry
 - Stock Seed ('O MA' HA')
- ICST needed in southern, Midwestern, and eastern PMCs (KC, ET, ST, KS, AR, MO, MS, GA, WV)

Cool season, native perennial, bunchgrass



Questions

- Discover value of ICST in cultivar development and for Source ID and Selected class releases?
- Generate interest for regional or multi-regional ICST?
- Create enthusiasm?

“ If you want to be enthusiastic, act enthusiastic.
Inner enthusiasm follows.”

-William Ellis