

**Developing a Standard Germination  
Protocol for Partridge Pea  
(*Chamaecrista fasciculata*)**

Southern Region Referee Report  
2011

# Background

Partridge pea

*Chamaecrista fasciculata*

Fabaceae

Emerging crop

Conservation, Wildlife., Etc...

No standard protocol



# Objectives

Survey Labs

Compile Results

Develop Protocol

Acquire Commercial Seed Lots

Distribute with Tentative Procedure

Compile Results

Evaluate Consistency of Method

# Materials and Methods

## Email Survey

Familiarity, Frequency of Submission, Named Cultivars

Substrate, Temperature, Prechill, Count Dates, Other Information

## Preliminary Testing

# Summary of Results

20 responses

Relatively few samples submitted for testing

None = 7      <5 = 9      5-20 = 3      20+ = 1

Many lots (65%) submitted as named cultivars

9 test methods

## Laboratory test methods reported for partridge pea

Sub.	Germ. Temp. (°C)	1st ct. (d)	Final ct. (d)	PC	PC Temp. (°C)	PC Dur. (d)	Special Notes	Labs Rptg Method
Blotter	20-30	7	14	No				4
Blotter	20-30	7	21	No				2
Blotter	20-30	7	21	No			Pre-germ clip	1
Blotter	20-30	7	21	New crop	5	7		1
Towel	20-30	7	14	No				4
Towel	20-30	6	21	No				1
Towel	20-30	7	21	No			Pre-germ clip	1
Towel	20	7	14	New crop	10	3	Paired test (20/20-30)	1
Towel	20-30	21	30	All	7.5	7-10		1

# Preliminary Dormancy Breaking Data

Seed Lot	Treatment	Early Germ. (%)	Final Germ. (%)	Hard Seed (%)	Total Viable (%)
Lot A	Control	8	19	18	37
	PC-H <sub>2</sub> O	48	49	20	69
Lot B	Control	6	13	27	40
	PC-H <sub>2</sub> O	41	44	30	74
Lot C	Control	1	15	26	38
	PC-KNO <sub>3</sub>	41	43	23	66

# Conclusions

Multiple test methods

Equivalent/Consistent?

Physical/Physiological dormancy limits  
germination

Clipping too labor intensive

Prechilling seems to be easy and effective



# Future Direction

Finish Preliminary Data Collection

Substrate

Temperature

Acquire Commercial Seed Lots

Distribute with Tentative Procedure

Compile Results

Evaluate Consistency of Method

Recommend Rules Proposal