

RED PINE SILVICS  
&  
EXPERIENCES ON THE  
HIAWATHA NATIONAL FOREST

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First-year Cones

Second-year Cones



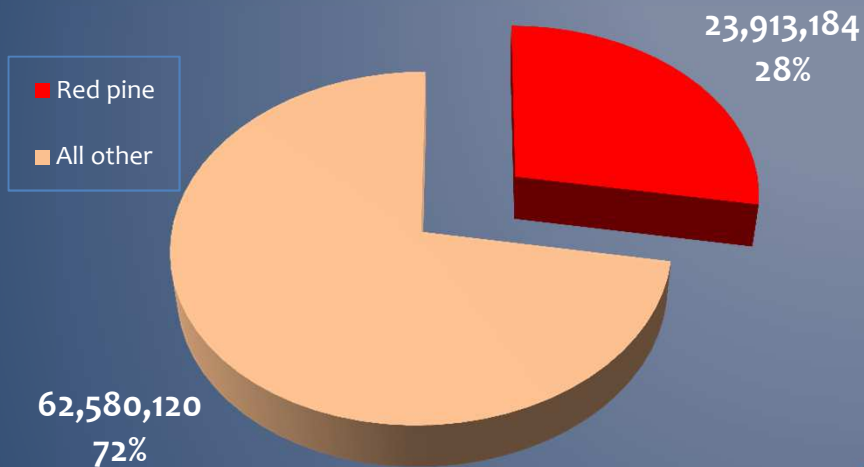




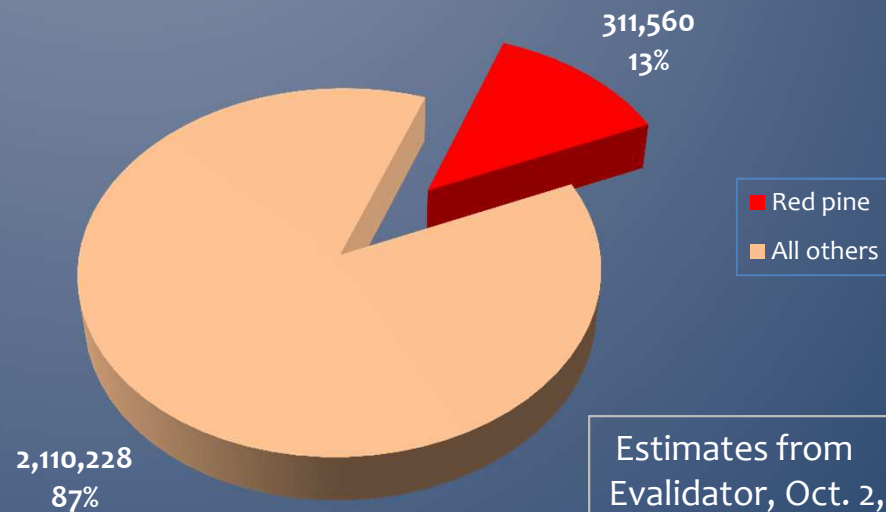


# COMPARISON OF RED PINE NET GROWTH TO ACREAGE OF RED PINE TYPE

Net growth (cubic feet)  
growing stock on timberland  
US Forest Service owner, MI, 2013



Timberland acreage  
US Forest Service, MI, 2013



Estimates from  
Evaluator, Oct. 2, 2014

# White Grubs

















Site preparation

2-row Bracke





Plant the seedling  
In the “Sweet Spot”



# Aerial Seeding (jack pine)



03/16/2010















Site preparation

Skidder

Roller-chopper

Anchor chains





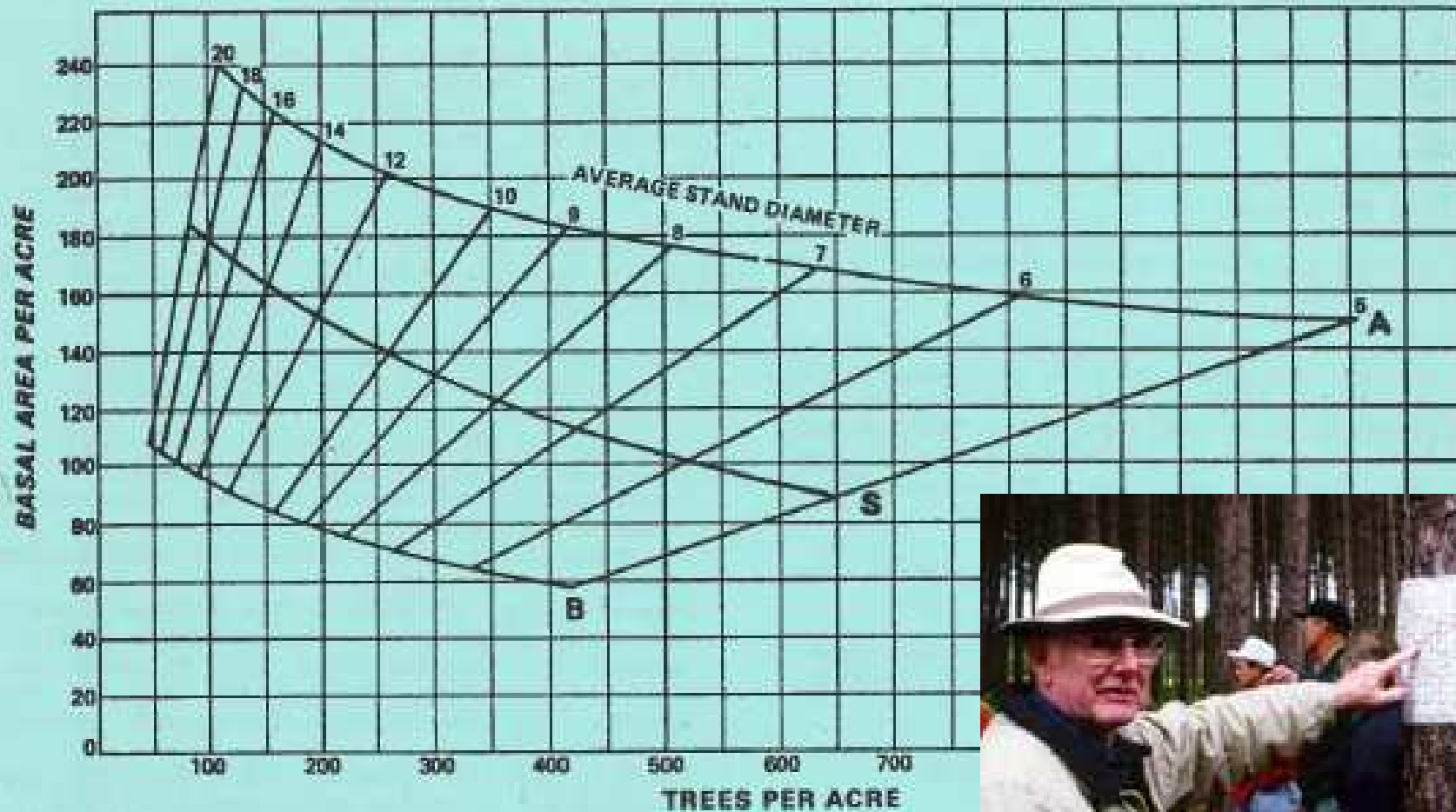








FIGURE 2400-2 Stocking Levels for Managed Red Pine Stands \*



\* Benzie, J.W. 1977. Manager's Handbook for Red Pine in the M...  
Service General Technical Report NC-33.)



John Benzie & stocking chart







Drop???

# RED PINE

## *Dominant Species:*

red pine	aspen
eastern white pine	black oak
jack pine	northern red oak
red maple	eastern hemlock
black cherry	

## **Abiotic factors:**

- **Low nutrients and moisture**
- **Sandy glacial deposits, thin soils over bedrock**

## **Disturbances:**

- **Severe stand-replacing and mild surface fires**
- **Droughts**
- **Insects and wind**



## **MNFI Natural Communities:**

**Dry northern forest**

**Dry-mesic northern forest**

*Courtesy of Stephen Handle, NIACS*