

Integration of herbicide and fertilizer applications to establish *Acacia koa* seedling populations in abandoned exotic grass pastures on Mauna Kea

James Leary and Paul Scowcroft



College of Tropical Agriculture and Human Resources - University of Hawaii at Manoa



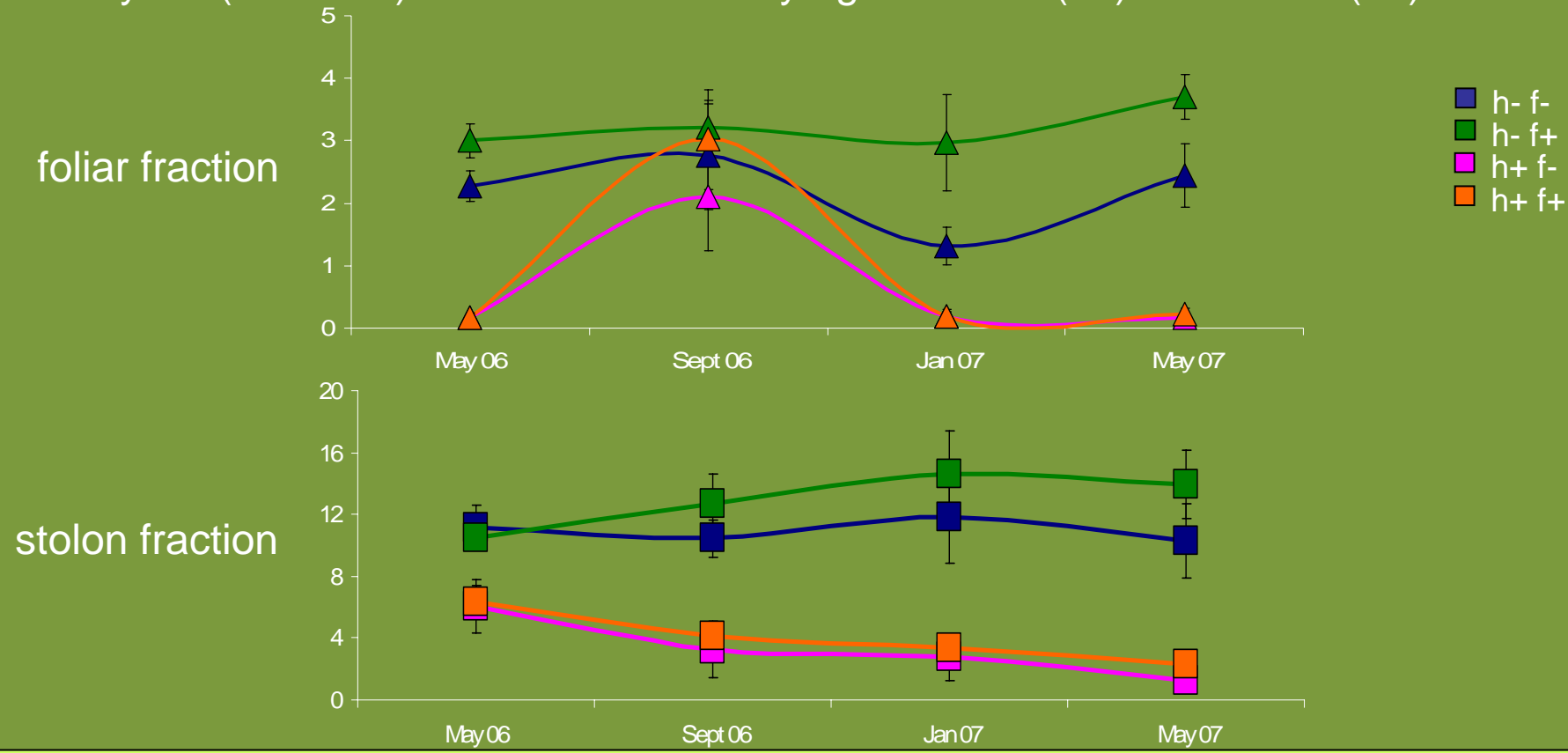


Sward Structure of kikuyu grass:

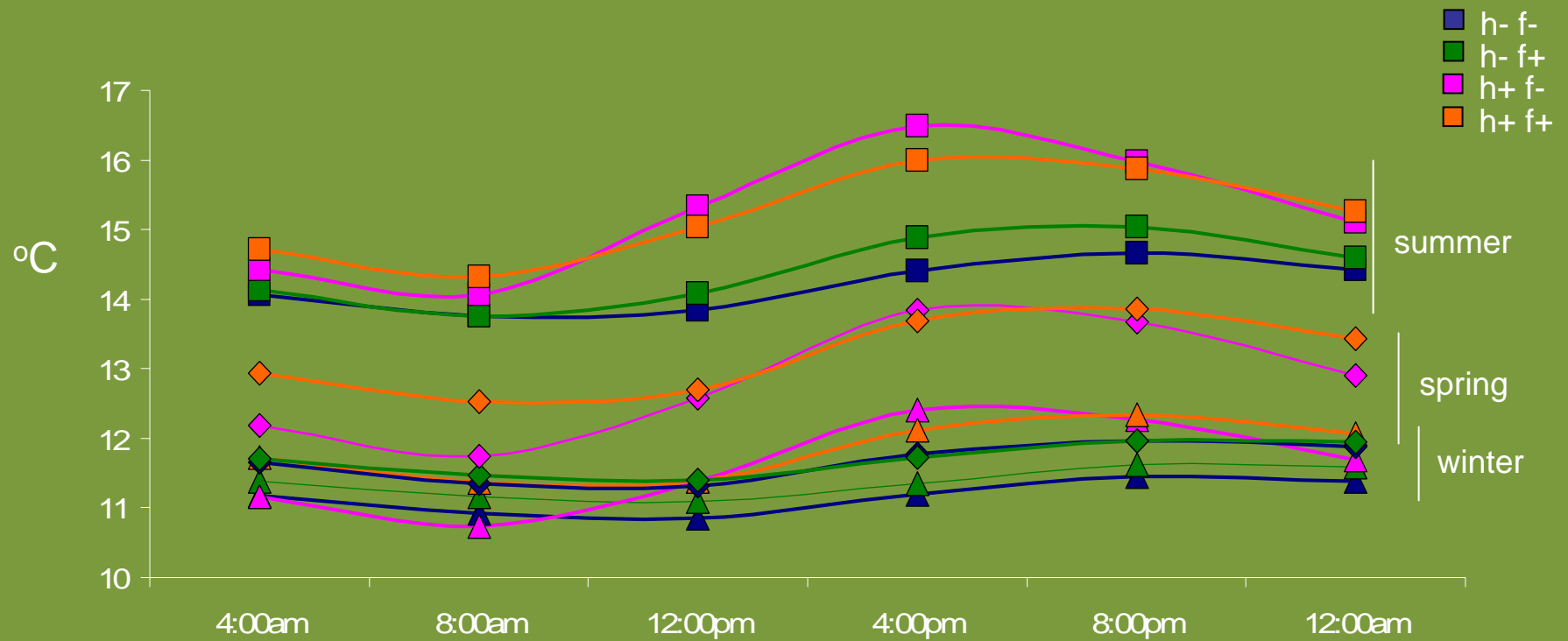
Foliar fraction- the photosynthetic component
Stolon fraction- the invasive component

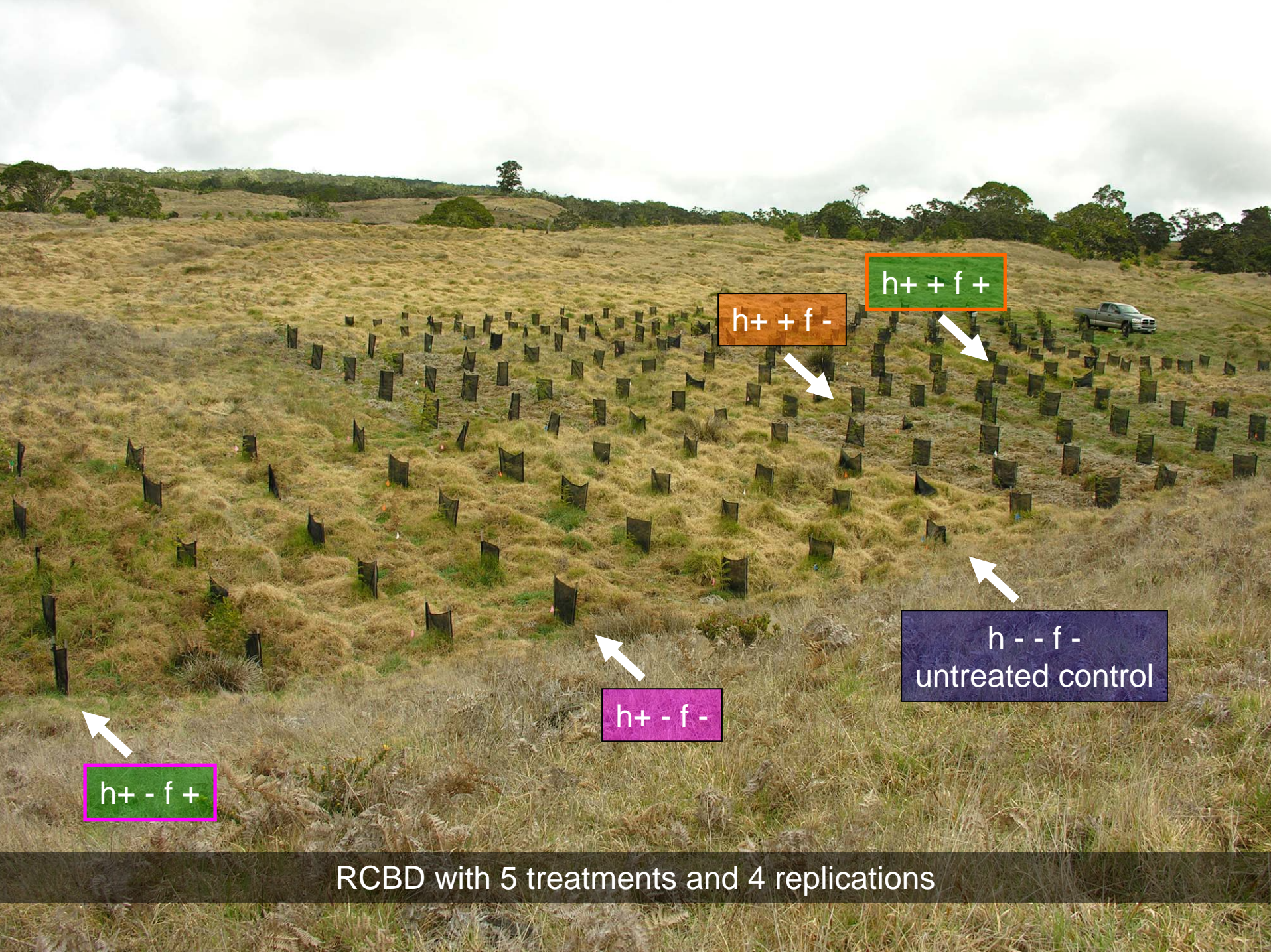


Mean dry wt. (\pm SE n=5) in T ha⁻¹ of the kikuyu grass foliar (\triangle) and stolon (\square) fractions.



Daily soil temperatures measured at 10cm below soil surface and recorded every 4 hours from June-Sept. 2006(□), Nov.- Feb. 2007 (△) and March-May 2007 (◇).





$h+ + f +$

$h+ + f -$

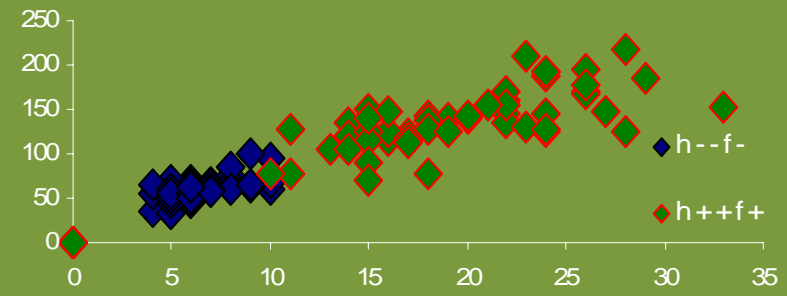
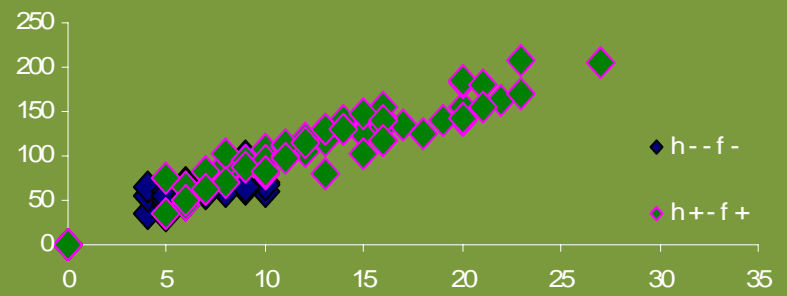
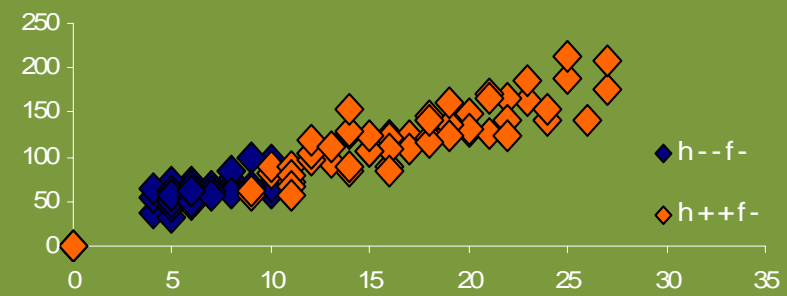
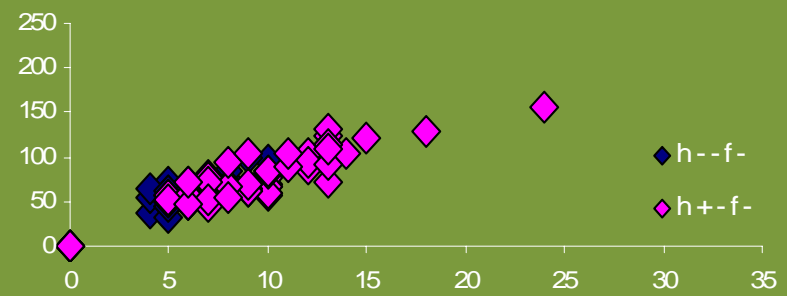
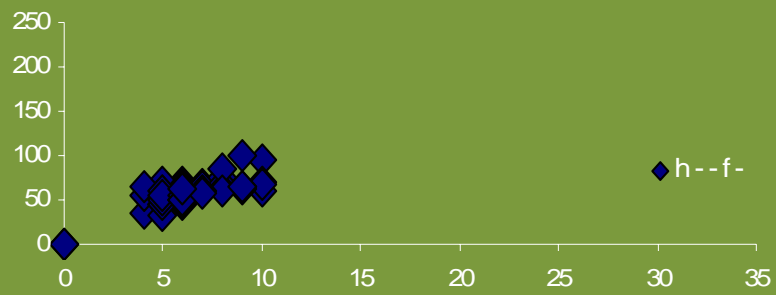
$h - - f -$
untreated control

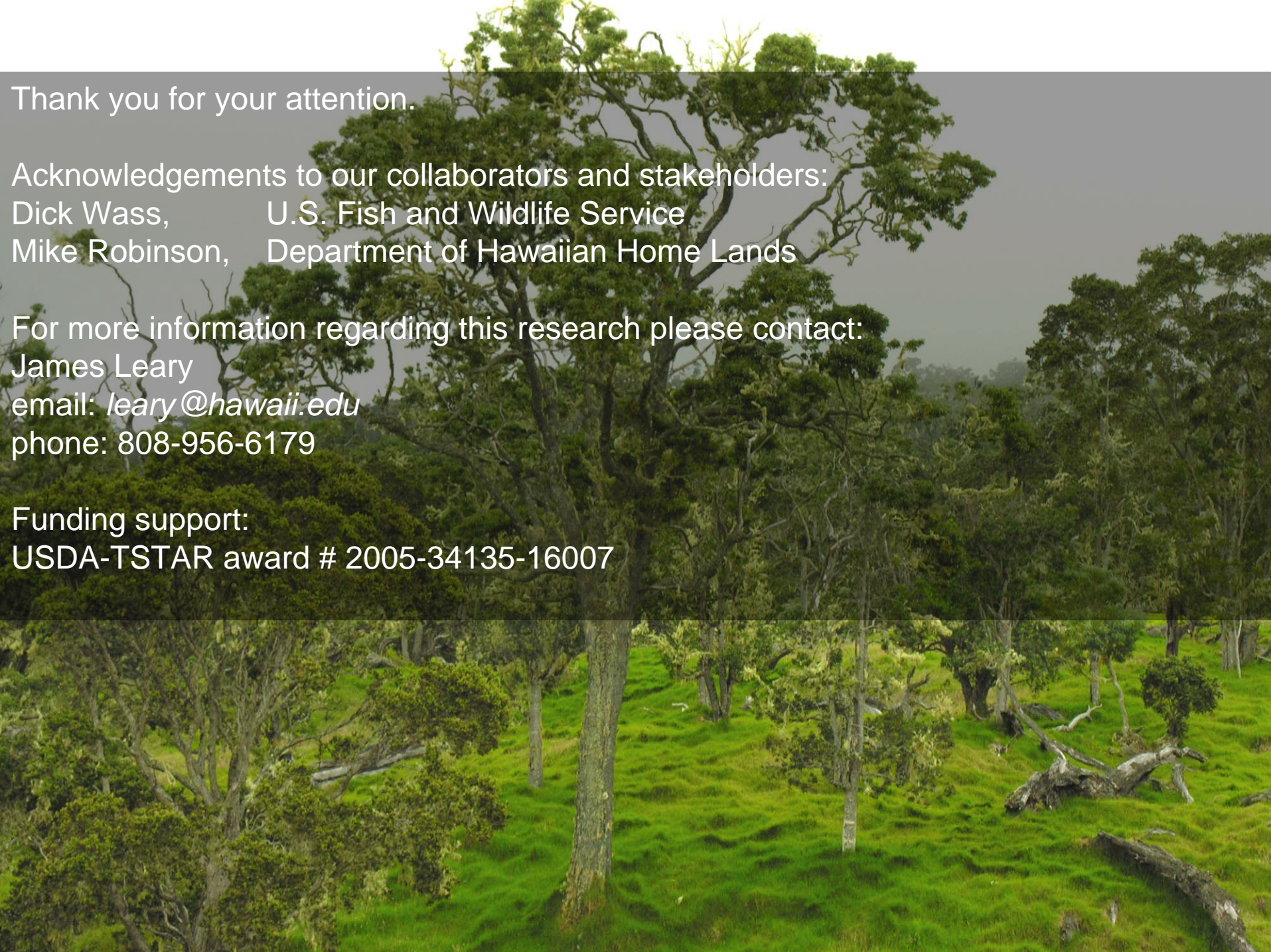
$h+ - f -$

$h+ - f +$

RCBD with 5 treatments and 4 replications

Tree height (cm) and basal diameter (mm) of koa saplings 12 months after transplant.



The background of the slide is a photograph of a natural landscape. It features a dense forest of tall, green trees with thick canopies. In the foreground, there is a grassy field with several fallen tree trunks and branches lying on the ground. The overall scene is vibrant and green, suggesting a healthy ecosystem.

Thank you for your attention.

Acknowledgements to our collaborators and stakeholders:

Dick Wass, U.S. Fish and Wildlife Service
Mike Robinson, Department of Hawaiian Home Lands

For more information regarding this research please contact:

James Leary
email: leary@hawaii.edu
phone: 808-956-6179

Funding support:
USDA-TSTAR award # 2005-34135-16007