

# Creating a Honey Corridor: Challenges of Coal Country Beeworks

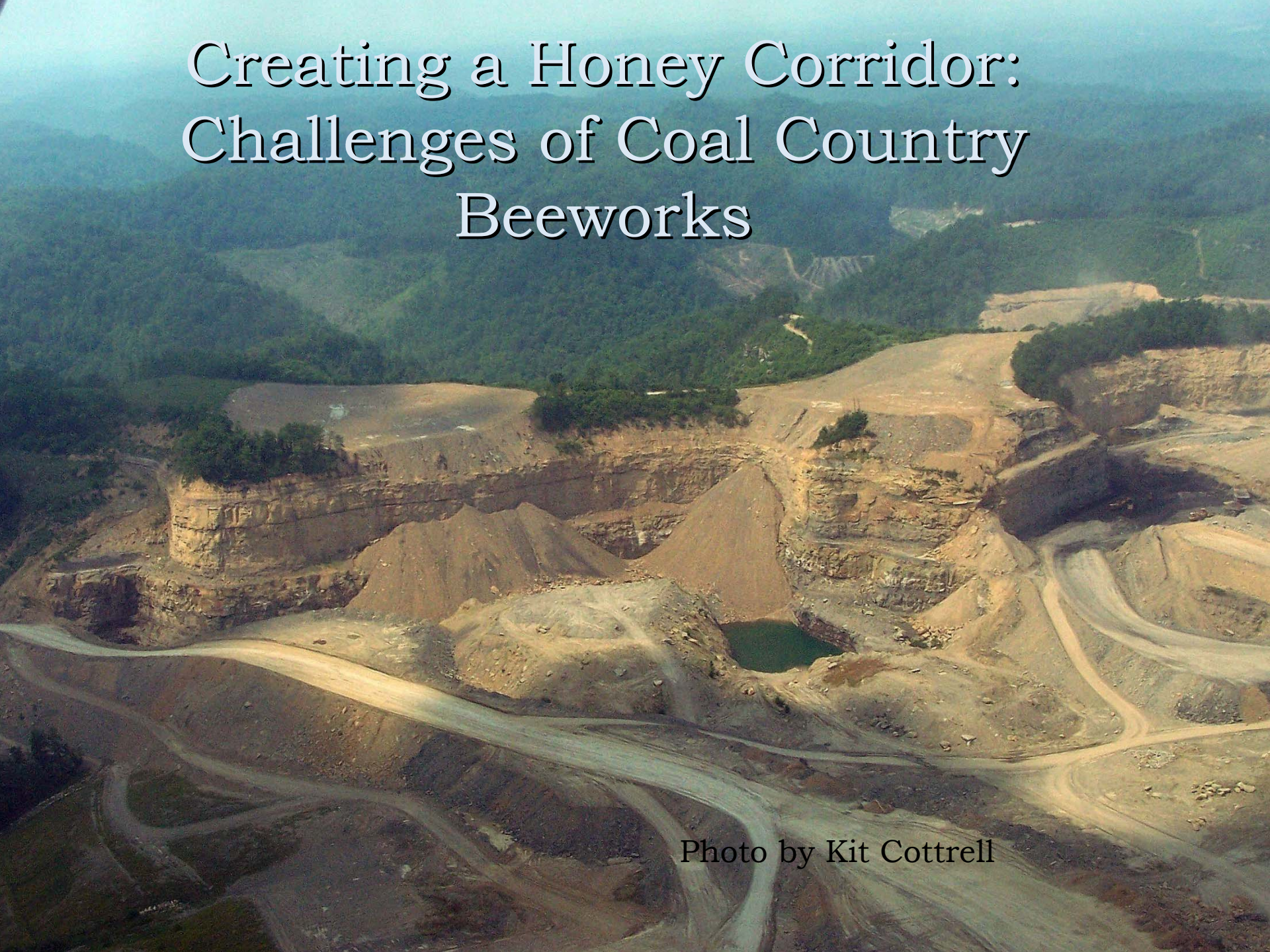
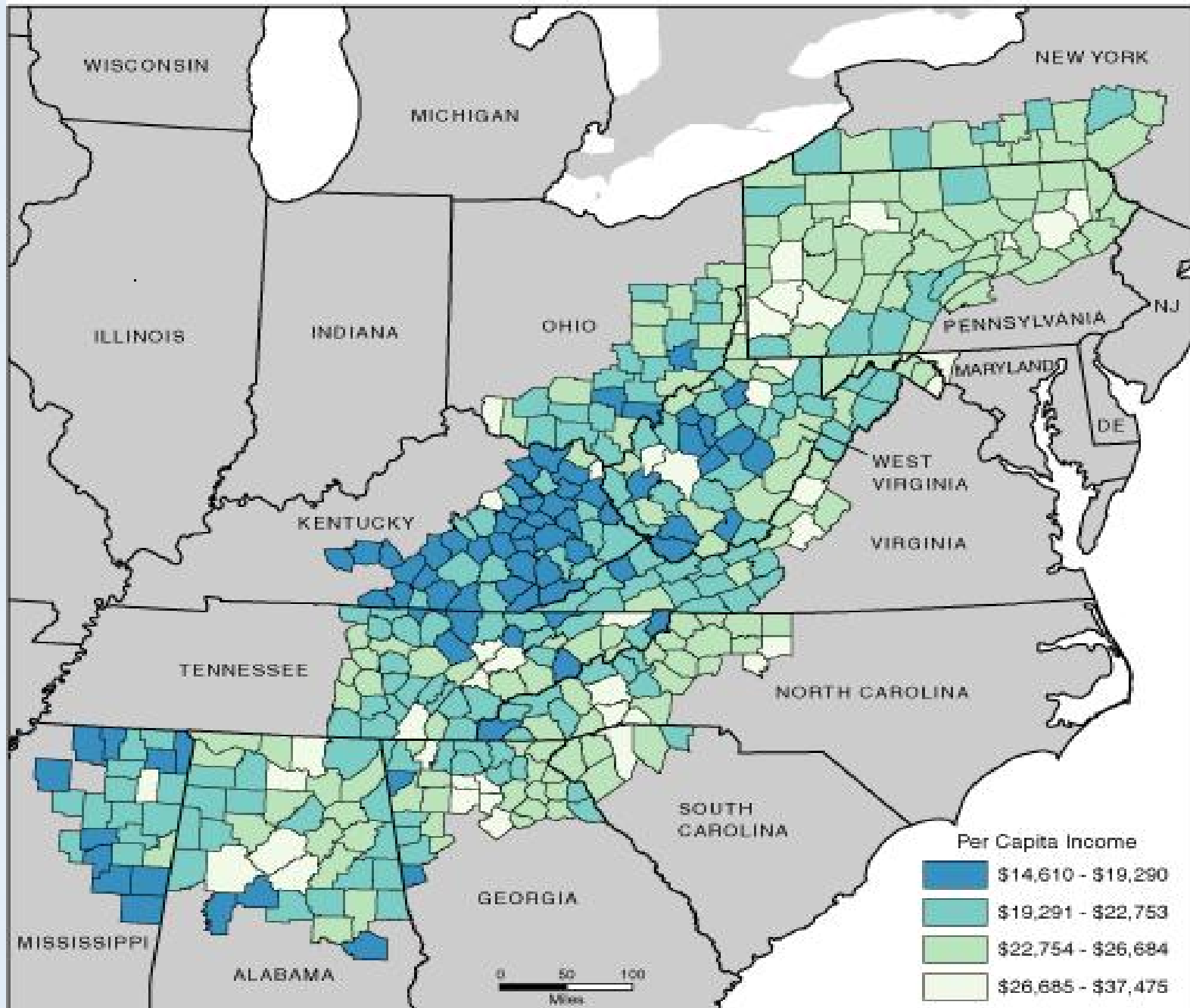


Photo by Kit Cottrell



Map Created: October 2006.  
 Data Source: U.S. Bureau of Economic Analysis, REIS, 2003.  
 Data Classification Scheme: Natural Breaks.

U.S. average = \$31,472  
 Appalachian average = \$26,014

# Deforestation

- 134 acres of forest land disappears every day in KY
- Combination of residential, transportation, industrial use
- Reforestation can address pollen-nectar “deserts” and “bloom gaps” and also reinvigorate forest-based beekeeping

# Forest-Based Beekeeping since 300 A.D.



# Reclamation and Beekeepers

- 1973-76 Madisonville Community College, KY, Tennessee Valley Authority
- 1997-present. Appalachian Regional Reforestation Initiative [ARRI]
- 2008-2010: CCBeeworks and International Coal Group, James River Coal, and Pine Branch Coal

# U.S. Surface Mining Control Reclamation Act 1977

- SMCRA addressed flooding and landslides
- Mining: “temporary” use of land
- Reclamation emphasizes approximate original contour (AOC) and compaction
- 1977-1995 Reclamation is commercial development, NOT forests

# Surface Mine Techniques

- Thin-layered coal seams. Less expensive than underground mining
- Includes auger mining, block and cut, grid layering, bench-cutting, etc.
- Technology outpaces federal legislation
- Current efforts to shape legislation: Appalachian Regional Reforestation Initiative (federal); Pollinator Habitat bill (KY) and Highway Right of Way bill (KY)



UK RESEARCH SITE

CELLS 7,8&9

COMPACTED

YEAR PLANTED 1996





# Appalachian Regional Reforestation Initiative

ARRI guides:

1. Loose soil
2. High value trees
3. Slopes under 20 degrees
4. Four-feet of Topsoil
5. Commercial Timber is focus



Photo of American chestnut: courtesy of ECU Chris Radcliffe

# Coal Country Beeworks

- Three-season bloom: redbuds, tulip poplars, black locusts, basswoods, sourwoods, wildflowers
- Pollinator mediation increases seed set on mine sites
- 5000 sourwoods in 2008 and 2009, modifying approach in 2010 to move bees to existing sourwoods
- Partnered with KY Dept. of Fish and Wildlife to plant 3.15 pounds of flower seed per acre, totaling \$33,500.00, and planted 398 acres combined on three surface mine sites in eastern KY in 2009-2010.
- Security (fencing)
- Education and extension on site and in communities

# Oxydendrum Arboretum: Sourwood Trees





- Blooms in July
- Bloom Lasts until Oct.
- Honey is more profitable than other varieties
- Appalachian native

Photo: [www.secludedgarden.com](http://www.secludedgarden.com)



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PLEASE DO NOT DISTURB  
"Coal Country Bee Works"  
ICG ECU  
Eastern Kentucky University  
Honey Bee Research Project  
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# New Challenges

- Political administrative changes
- EPA regulations may impact the extent of surface mining in Appalachia, but less so in the rest of the U.S.
- Funding
- Campus Criteria established



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A photograph of the Eastern Kentucky University sign. The sign is dark brown with white text. It is set against a backdrop of trees with vibrant autumn foliage in shades of orange, red, and yellow. A large evergreen tree is visible in the background. The sign is mounted on a concrete base with a stone wall in front of it. The foreground is a grassy lawn with a metal grate.

EASTERN KENTUCKY  
UNIVERSITY

FOUNDED 1874/1906



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