Microstegium vimineum
Spread Rate in Relation to Two Different Leaf Litter Disturbances

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Microstegium vimineum

What is it?
AKA – Japanese stilt grass, Napolese browntop
Native to most of Asia
~1918 – documented in TN

Range in the USA
**Microstegium vimineum**

Annual, sprawling grass
Can exceed 3 ft in height
C4 shade tolerant

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**Microstegium vimineum**

**Generalist**

• Grows in a variety of light, moisture, and nutrient conditions

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**Seeds and Dispersal**

Cross and self fertilizes
Hundreds of seeds per plant
Excessive runoff
Animals
Contaminated material (i.e. hay)
Vehicles/equipment
**Spread Rate**

Affect of leaf litter disturbance?

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**Objective**

To determine what affect leaf litter disturbance has on the spread rate of *Microstegium vimineum*.

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**Methods**

**Site Selection**

3 Sites
Definitive patch/infestation
Cumberland Forest and Oak Ridge Arboretum
Treatments

1. No Disturbance (control)
2. Stir/Mix leaf litter
3. Remove leaf litter

Three of each treatment per site

Example Patch

Treatment dimensions = ½ x 2 meters
½ meter subplots within each treatment

Implementation

Stirring and removal of litter

Mid March
Measurements

Taken on monthly basis
1. Spread Rate
2. Percent Cover estimation for ½ meter subplots
3. Light and Moisture measurements

Stem count at end of study

Statistics

One way ANOVA – block design
1. Control vs. stirred litter
2. Control vs. removed litter
3. Stirred litter vs. removed litter

Acknowledgements

Dr. Wayne Clatterbuck
Dr. Chris Oswalt
Dr. Greg Armel