Mulch Blending Procedures

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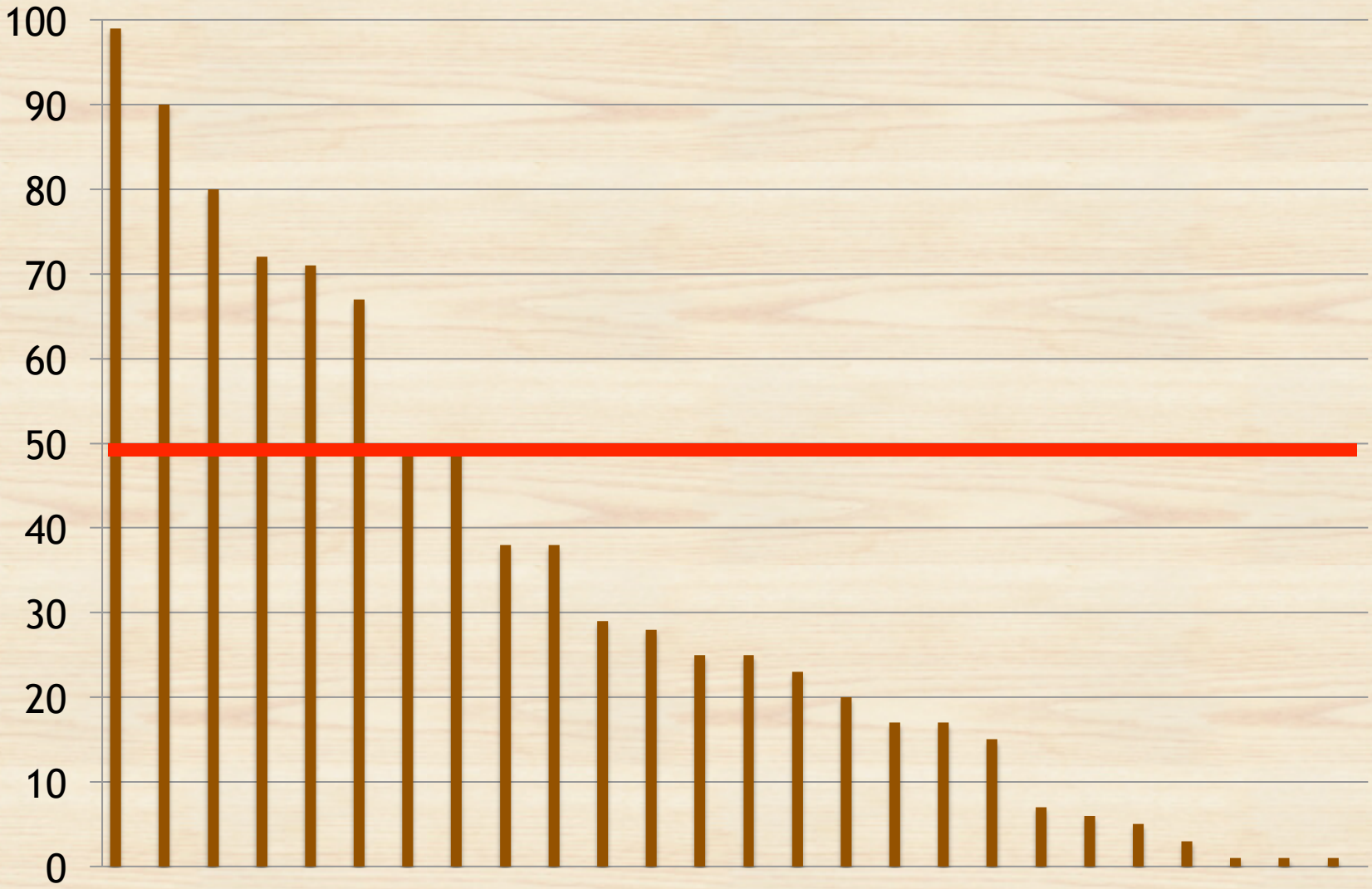
Background

- First mulch blend, “Cypress Blend,” came on the market ~2004
- Cypress blend must contain 51% cypress
- In 2012, MSC revised species testing procedure to better determine % cypress

Wood Identification

- Center for Wood Anatomy Research
- Forest Products Lab
- US Forest Service
- Regis Miller, Ph.D.
  - Research Scientist 40 yrs.
  - Wood ID Guy

Cypress Blends: % Cypress



Results

- Most blends failed the test
- 1/3 were 20 to 40% cypress
- 1/3 were below 20% cypress

MSC Investigation

- Interviewed producers
- Recipe mulch blending new to most
- Many producers have limited blending equipment
- No on-site test for species percentage

Problem for Producers

- Proper percentage necessary for sale
- New regulatory interest in mulch & soils
- Low percentages subject to fraud
- Opens producers to litigation
- Fuel for class-action

Blending: In-Line Mixer

- Common in soil mixing facilities
- Accurate, fast, $$$
- Not available in most mulch facilities

Blending: At the Grinder

- Common practice
- Operator must balance “log mix” going into grinder

Blending: At the Grinder

- Difficult to have correct ratio of proper sized logs
- Samples of 50:50 blend ranged from 20:80 to 60:40

Blending: Loader Bucket

- Straight forward
- Equipment usually available at mulch facilities
- Mix thoroughly?

Bucket Process

- 18 2-cubic ft bags (36 cu ft) of black & red mulch
- 0.75 cu yd bucket for blending
- 4 and 8 passes

After One Pass

After Four Passes

After Eight Passes

Physical Separation

Results

- 4 Turns: 54% Black 46% Red
- 8 Turns: 48% Black 52% Red

Blending Issues

- Establish consist bucket fill levels
- Grind materials separately then blend
- To ensure ≥ 51% of stated material, use more than 50% in mixing

1 bucket + 1 bucket ≠ 51% in every bag!

Blending Mulches

- Stated component, “cypress blend” must be 51% by volume
- To achieve 51% you must blend more than equal parts- regardless of equipment limitations
- No on-site test to check

MULCH & SOIL COUNCIL

Questions????