



# GAMA

**Global Acetate Manufacturers Association**

presents

**“the inside story  
on linings”**

Scientific test proves that  
ACETATE Linings are perceived  
more comfortable than Polyester  
linings.

# What do linings add to garments?

- Help them breathe
- Keep their shape
- Make them feel better when you slip them on
- Help them move with you
- Protect outer shell fabric
- Prevent see-through
- Keep you more comfortable



# Why acetate?

Acetate, because it is silk-like and breathable, is the most widely used fiber for linings fabrics.

In recent years, some garments have also been lined using polyester fabrics.

## And polyester?

But, do the polyester linings really perform the same as acetate linings?

Maybe the polyesters look similar, but...  
do they feel better on you?



# Acetate/Polyester

We want to share with you the results of comfort perception testing on acetate versus polyester lining fabrics



# The tests

These tests were conducted  
at the Sensory Analysis Center,  
Kansas State University



The Kansas State linings study by Dr. Elizabeth McCullough complements an earlier study done by the University of Maryland in 1988 by Dr. Norman Hollies

Jackets tested in the University of Maryland 1988 test clearly **showed a dominance of acetate's comfort over polyester's.**



# The key findings



# Comfort Perception Testing

The Kansas State University study tested the perceived comfort of lined jackets, using both lab instruments and people, in carefully controlled experiments.

The linings were tested in identical blazer jackets.

# Lining Fabrics Tested



Fiber Content	Fabric Name and Structure	Yarn Denier Per Filament	Fabric Weight (oz./yd. ) (g/m )
100% acetate	(twill weave)	W: 150/40 F : 150/40	3.35 113.6
100% acetate	(twill weave) lightweight	W: 115/50 F : 150/60	2.99 101.5
100% polyester	(twill weave)	W: 70/34 F : 100/30	2.36 79.9
100% acetate	taffeta (rib weave)	W: 150/40 F : 150/40	2.53
100% polyester	taffeta (rib weave)	W: 50/24 F : 75/36	1.48 50.3

# Testing procedure

- participants monitored in environmentally controlled chambers
- varied humidity and temperature levels

# Comfort Evaluation

Descriptors were used for the test:

Each participant was asked to rate from 1-5 how they felt after being in a chamber wearing the jacket.

Descriptors:

- sticky
- non-absorbent
- clammy
- damp
- clingy
- thermal sensation

## Key Findings:

- The acetate linings were perceived to be **SIGNIFICANTLY** more comfortable than the polyester linings.

Specifically, the subjects felt less sticky, clammy, and damp when wearing acetate linings.



And:

Acetate linings were perceived to transfer moisture much better than polyester



And:

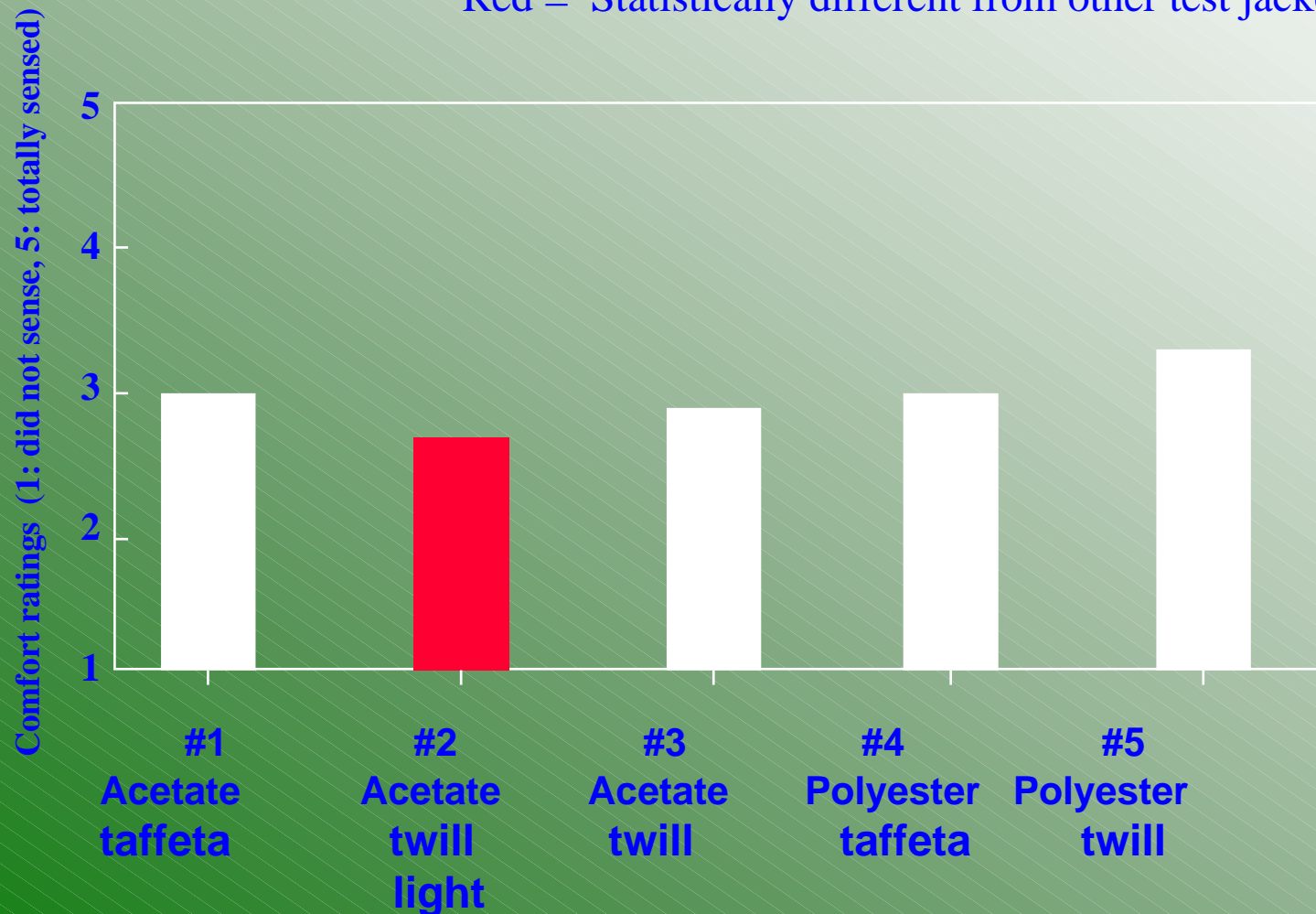
Even though the acetate linings fabrics were heavier in construction, they were perceived as “lighter” than the lighter-weight polyester linings.



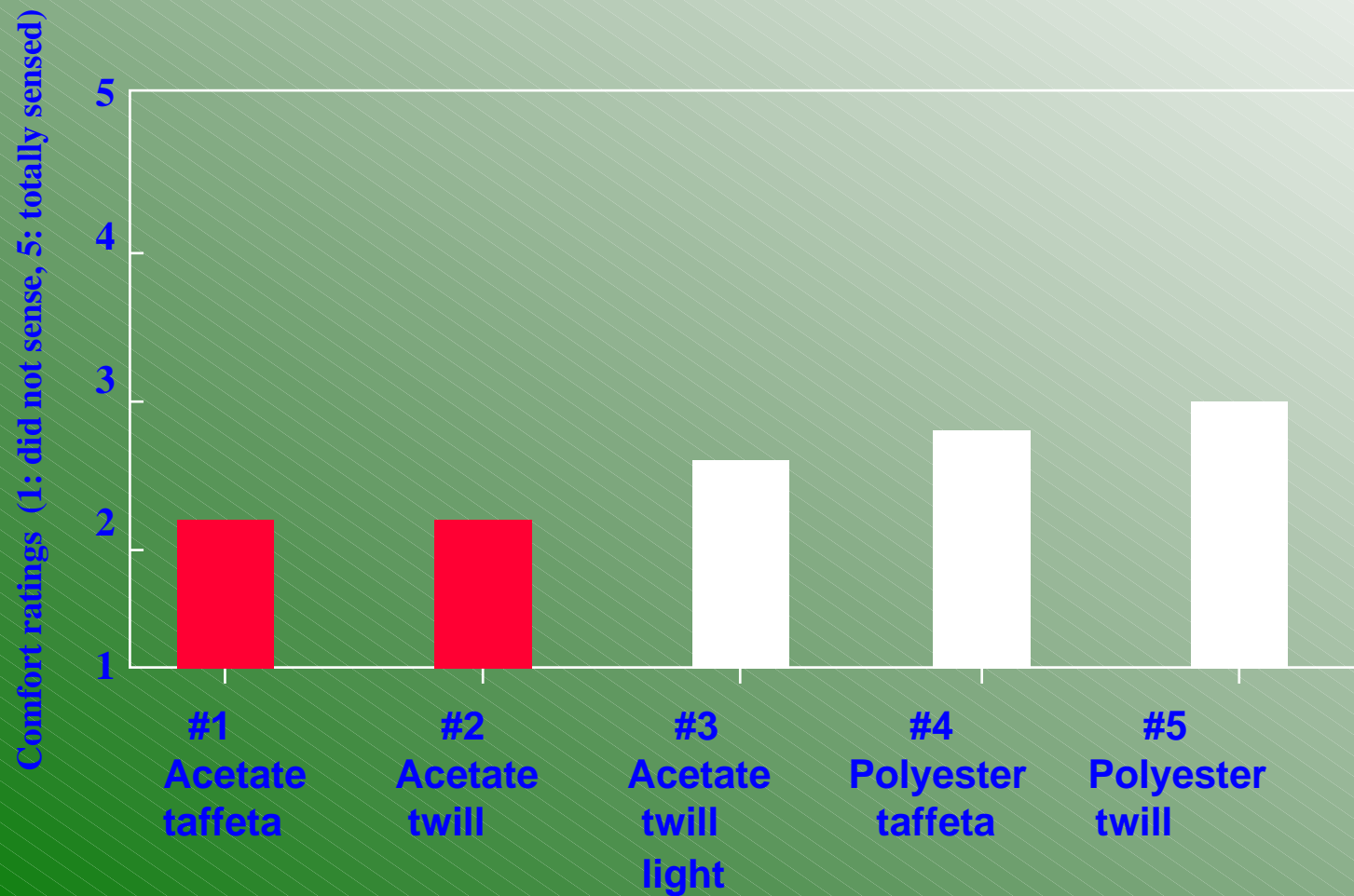
Facts, facts and facts...

## Comfort Descriptor: Clingy

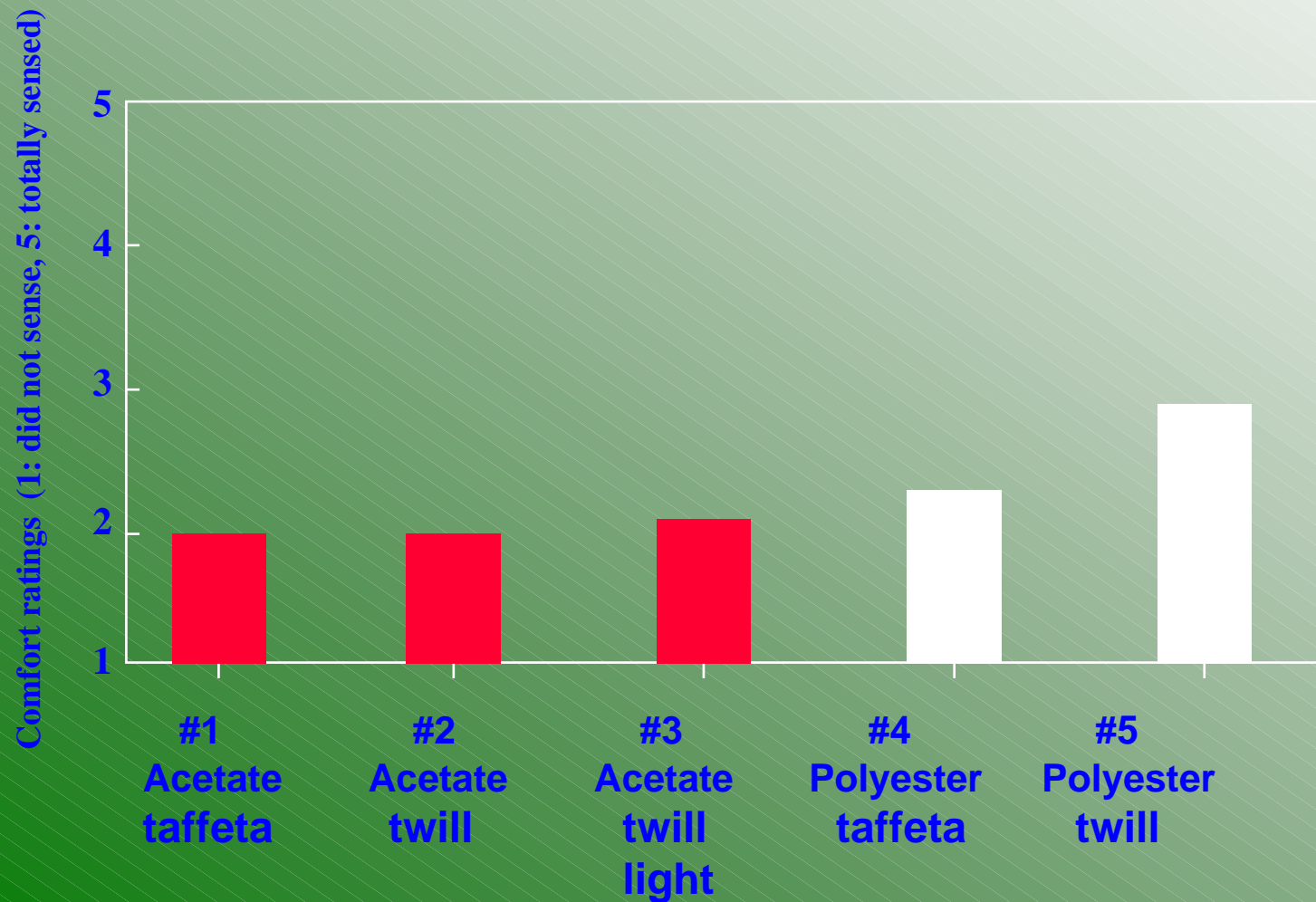
Red = Statistically different from other test jackets



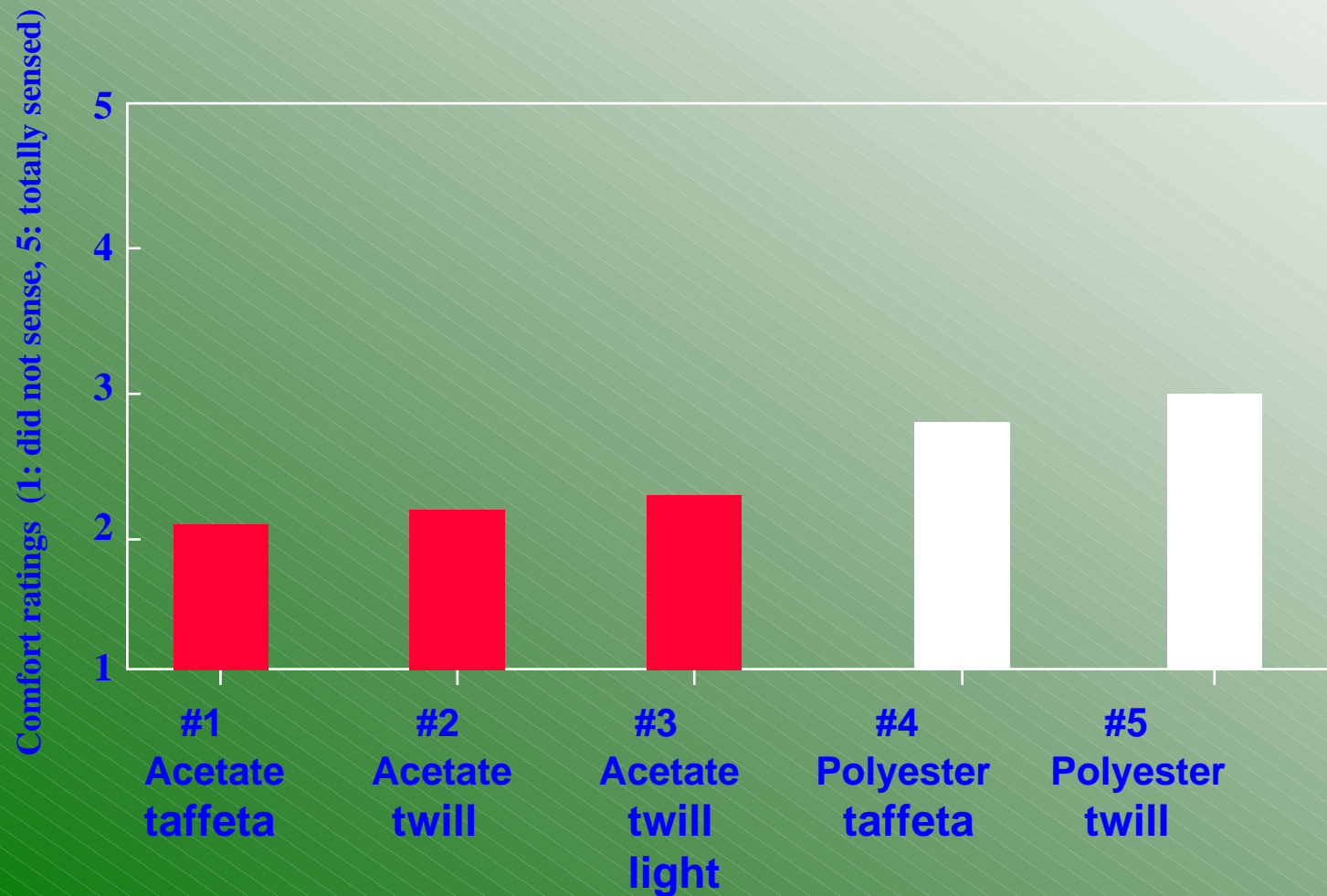
## Comfort Descriptor: Sticky



## Comfort Descriptor: Non-absorbent



## Comfort Descriptor: Clammy



## Comfort Descriptor: Damp

