

2004 Tomato Varieties for the West Texas Home Garden



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Materials and Methods

- Tomatoes seeded (mid-March) into flats in the greenhouse and grown for six weeks.
- Plants transplanted late April into wire cages and wrapped with spun-web cloth that allowed for 85% light infiltration. Cloth used for protection from wind, frost and leafhopper-transmitted curly top virus.
- Spun-web cloth removed in mid June.
- Fertilizer was applied preplant as 80 lbs nitrogen/A plus 25 lbs nitrogen broadcast during early June.

Caged Tomato Transplants



Materials and Methods (cont.)

- All plants treated for insect, diseases and weeds controlled as needed.
- Plants were furrow irrigated until mid June, when drip irrigation tubing was placed around plants.
- Tomatoes harvested weekly until mid-August.
- Data recorded included plant vigor, curly top virus tolerance and tomato yields.

Tomato Variety Trial Overview



Varieties Evaluated: 2004

Box Car Willie

Carnival

Heatwave

Mountain Pride

Spitfire

Sunchaser

Sunleaper

Taxi

Brandywine

Florida 91

Heatwave II

Sanibel

Sunbeam

Sun Chief

Sunmaster



Box Car Willie

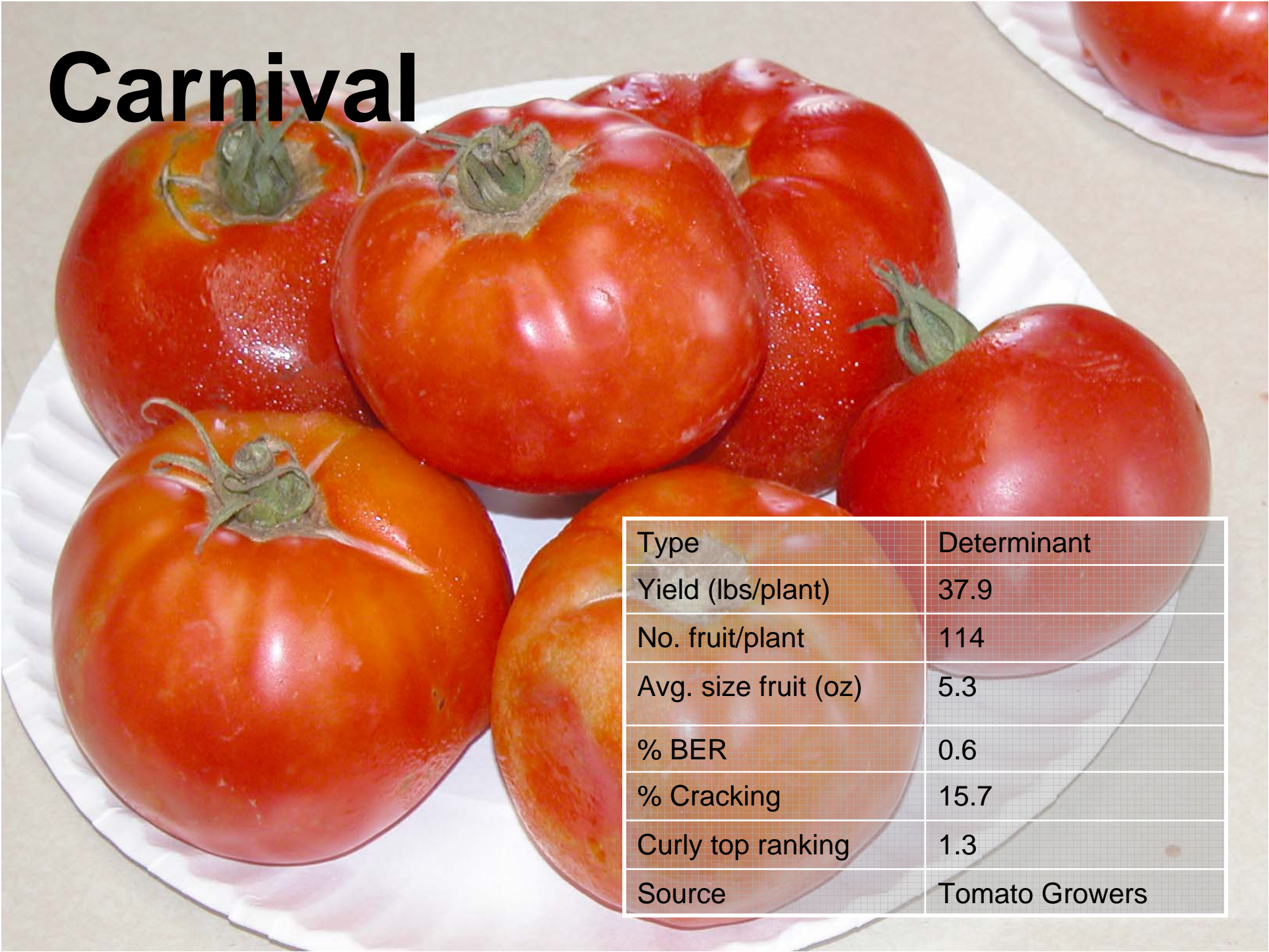
Type	Indeterminant
Yield (lbs/plant)	9.5
No. fruit/plant	42.3
Avg. size fruit (oz)	2.4
% BER	0
% Cracking	2.2
Curly top ranking	2.3
Source	Tomato Growers

Brandywine



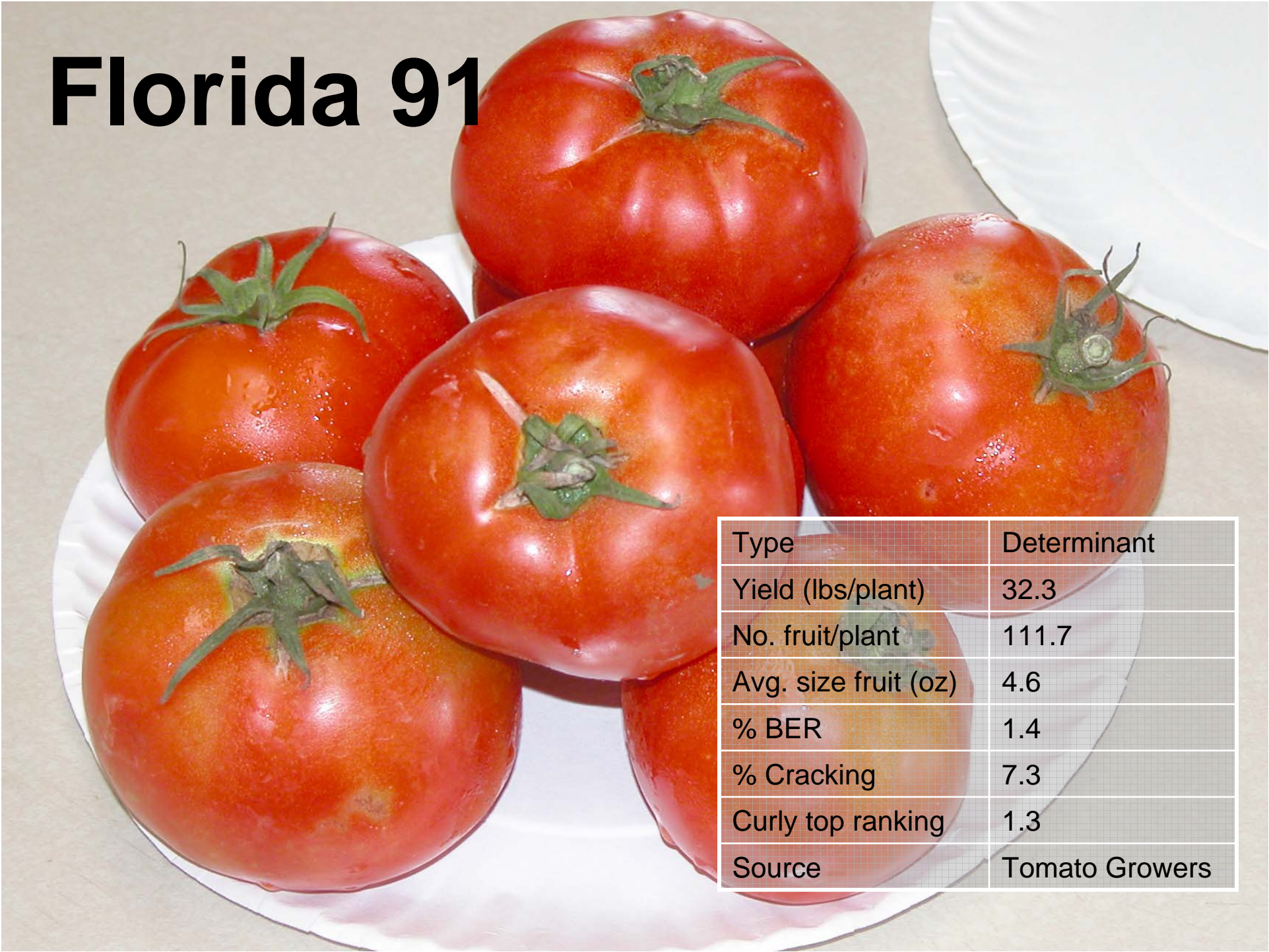
Type	Indeterminant
Yield (lbs/plant)	0.2
No. fruit/plant	1.3
Avg. size fruit (oz)	2.2
% BER	0
% Cracking	0
Curly top ranking	4.3
Source	N/A

Carnival



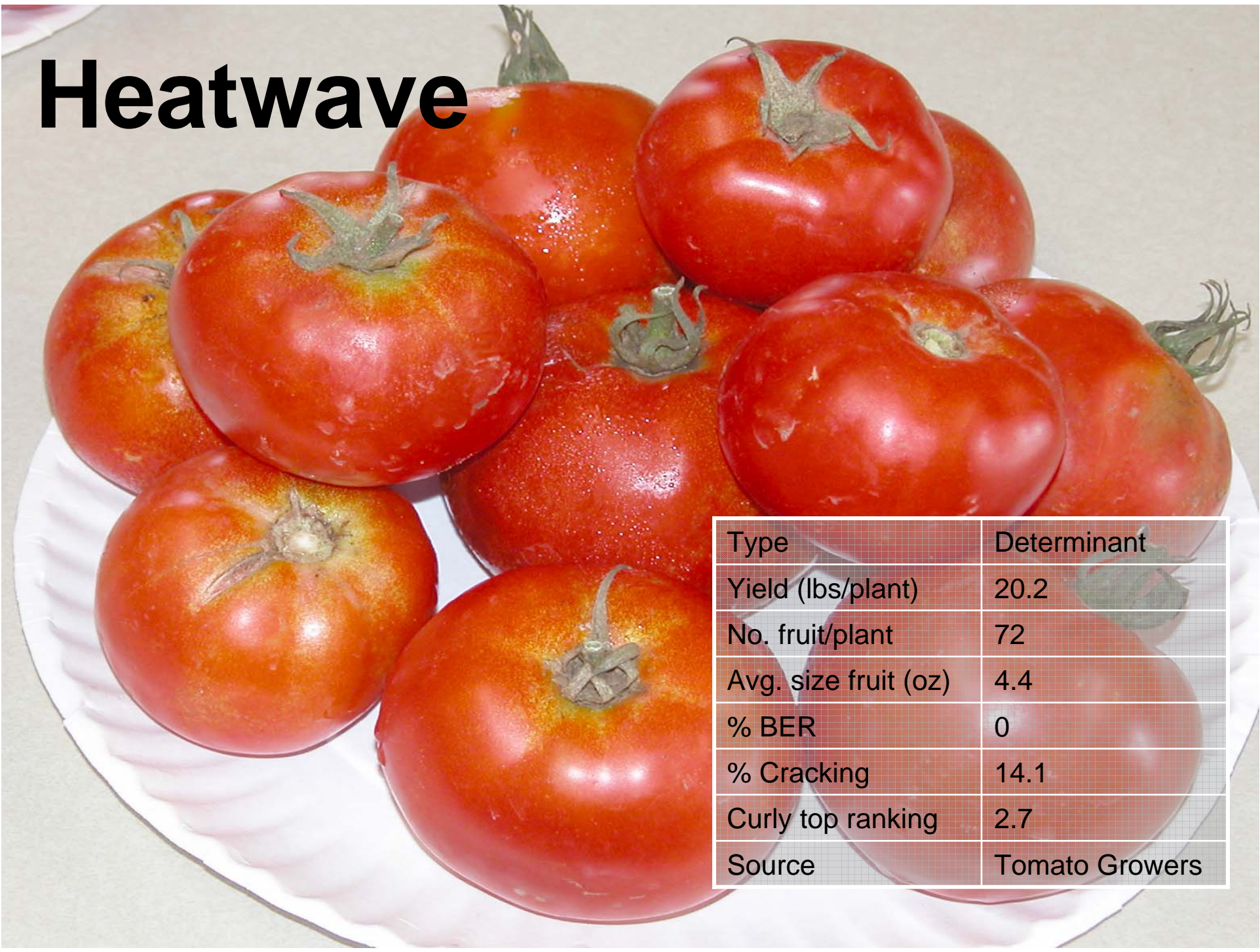
Type	Determinant
Yield (lbs/plant)	37.9
No. fruit/plant	114
Avg. size fruit (oz)	5.3
% BER	0.6
% Cracking	15.7
Curly top ranking	1.3
Source	Tomato Growers

Florida 91



Type	Determinant
Yield (lbs/plant)	32.3
No. fruit/plant	111.7
Avg. size fruit (oz)	4.6
% BER	1.4
% Cracking	7.3
Curly top ranking	1.3
Source	Tomato Growers

Heatwave



Type	Determinant
Yield (lbs/plant)	20.2
No. fruit/plant	72
Avg. size fruit (oz)	4.4
% BER	0
% Cracking	14.1
Curly top ranking	2.7
Source	Tomato Growers

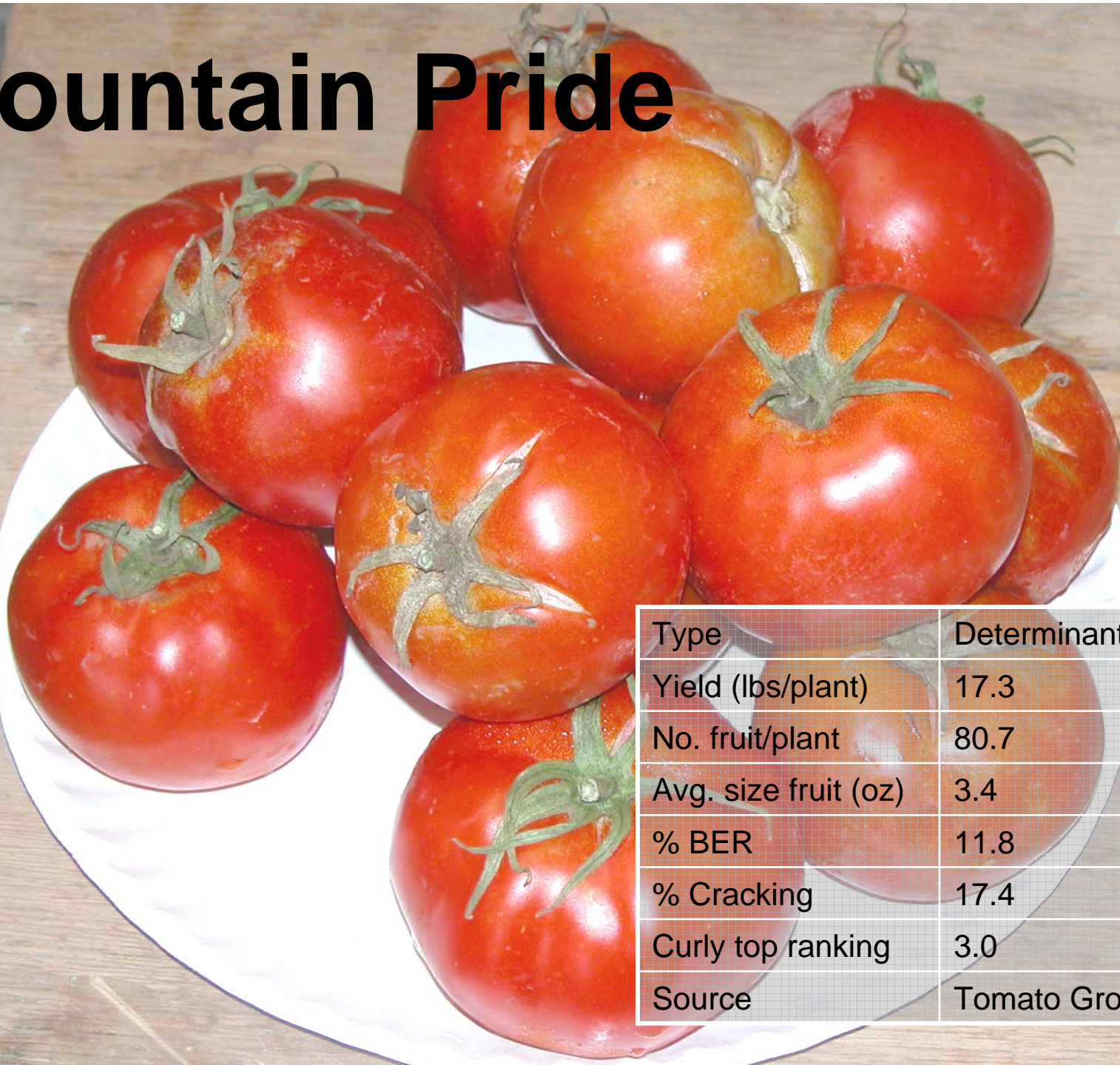
Heatwave II



A photograph of several ripe, red tomatoes with green stems, clustered together on a white plate. The tomatoes are of a medium size and have a smooth, slightly glossy skin. The background is a plain, light-colored surface.

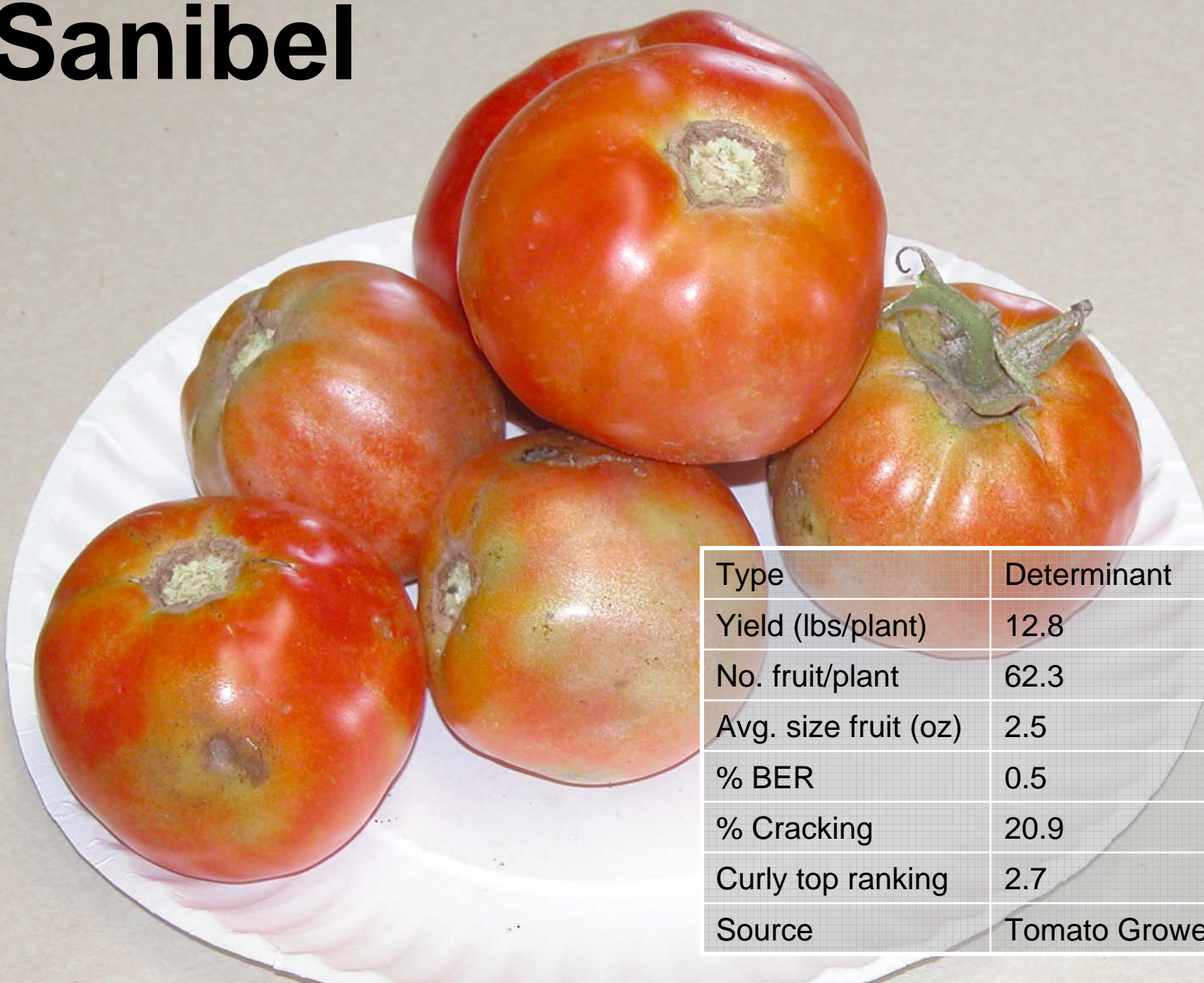
Type	Determinant
Yield (lbs/plant)	19.9
No. fruit/plant	85.7
Avg. size fruit (oz)	3.8
% BER	0.9
% Cracking	5.9
Curly top ranking	2.0
Source	Burpee

Mountain Pride



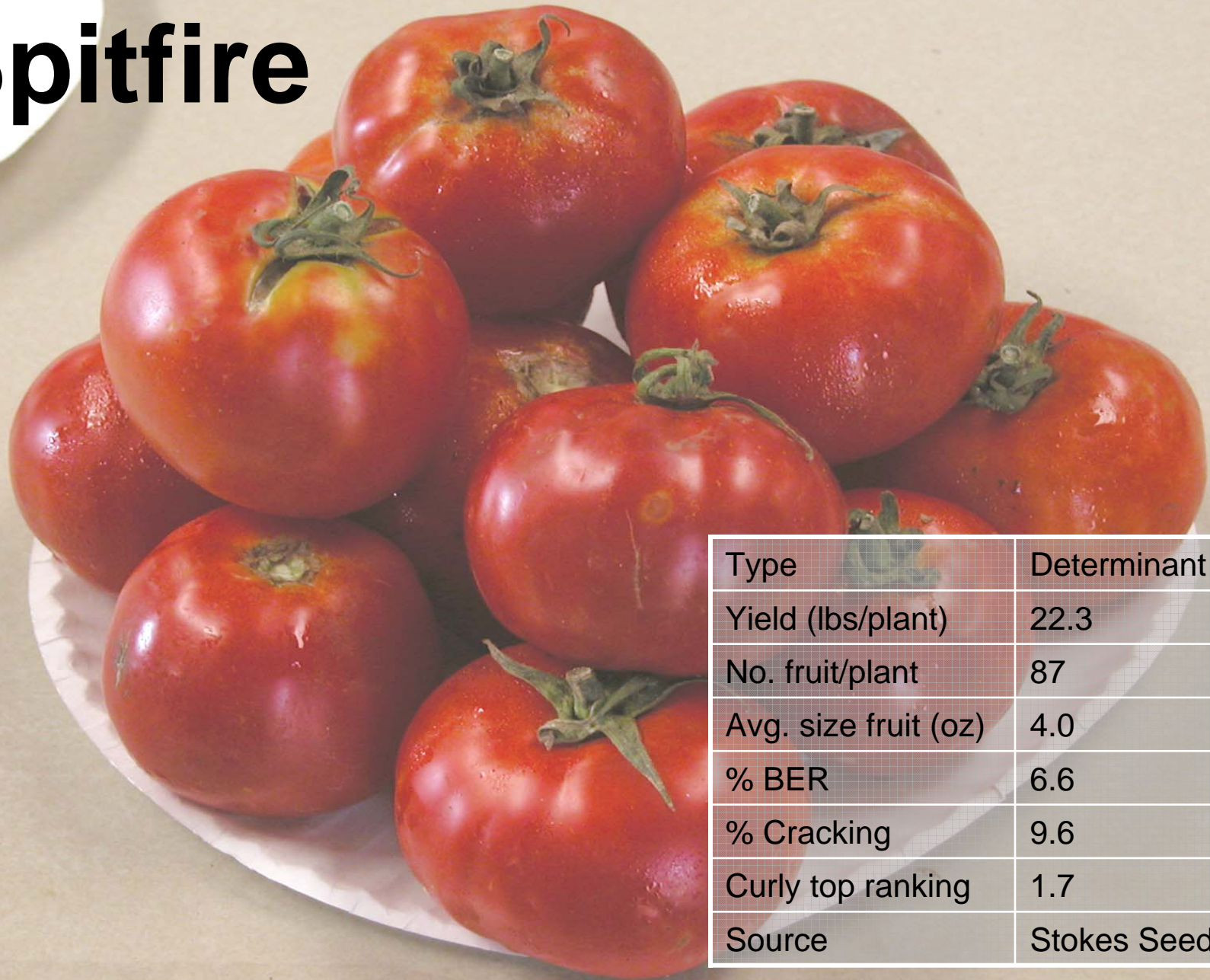
Type	Determinant
Yield (lbs/plant)	17.3
No. fruit/plant	80.7
Avg. size fruit (oz)	3.4
% BER	11.8
% Cracking	17.4
Curly top ranking	3.0
Source	Tomato Growers

Sanibel



Type	Determinant
Yield (lbs/plant)	12.8
No. fruit/plant	62.3
Avg. size fruit (oz)	2.5
% BER	0.5
% Cracking	20.9
Curly top ranking	2.7
Source	Tomato Growers

Spitfire



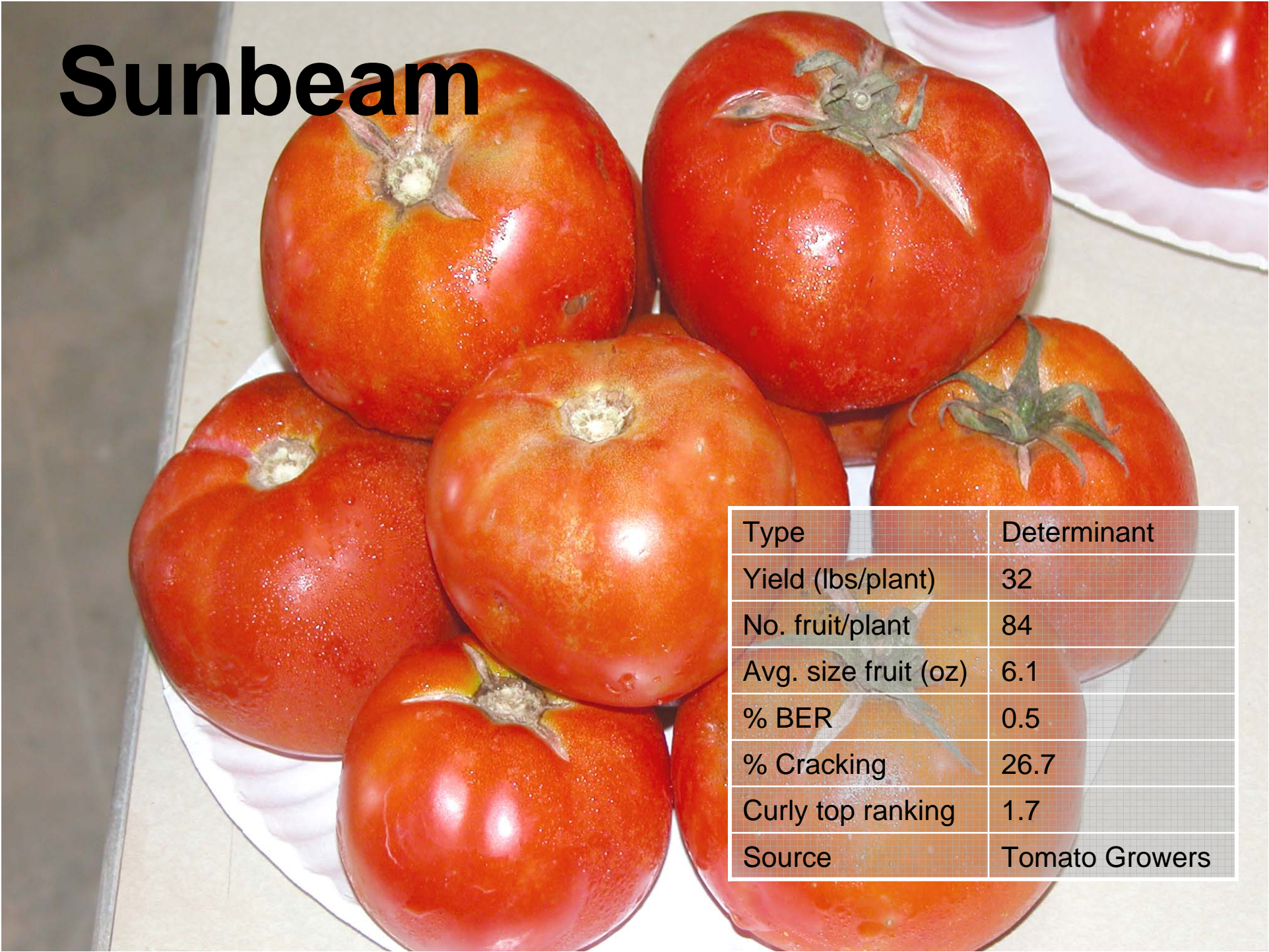
Type	Determinant
Yield (lbs/plant)	22.3
No. fruit/plant	87
Avg. size fruit (oz)	4.0
% BER	6.6
% Cracking	9.6
Curly top ranking	1.7
Source	Stokes Seeds

Spitfire

Determinant

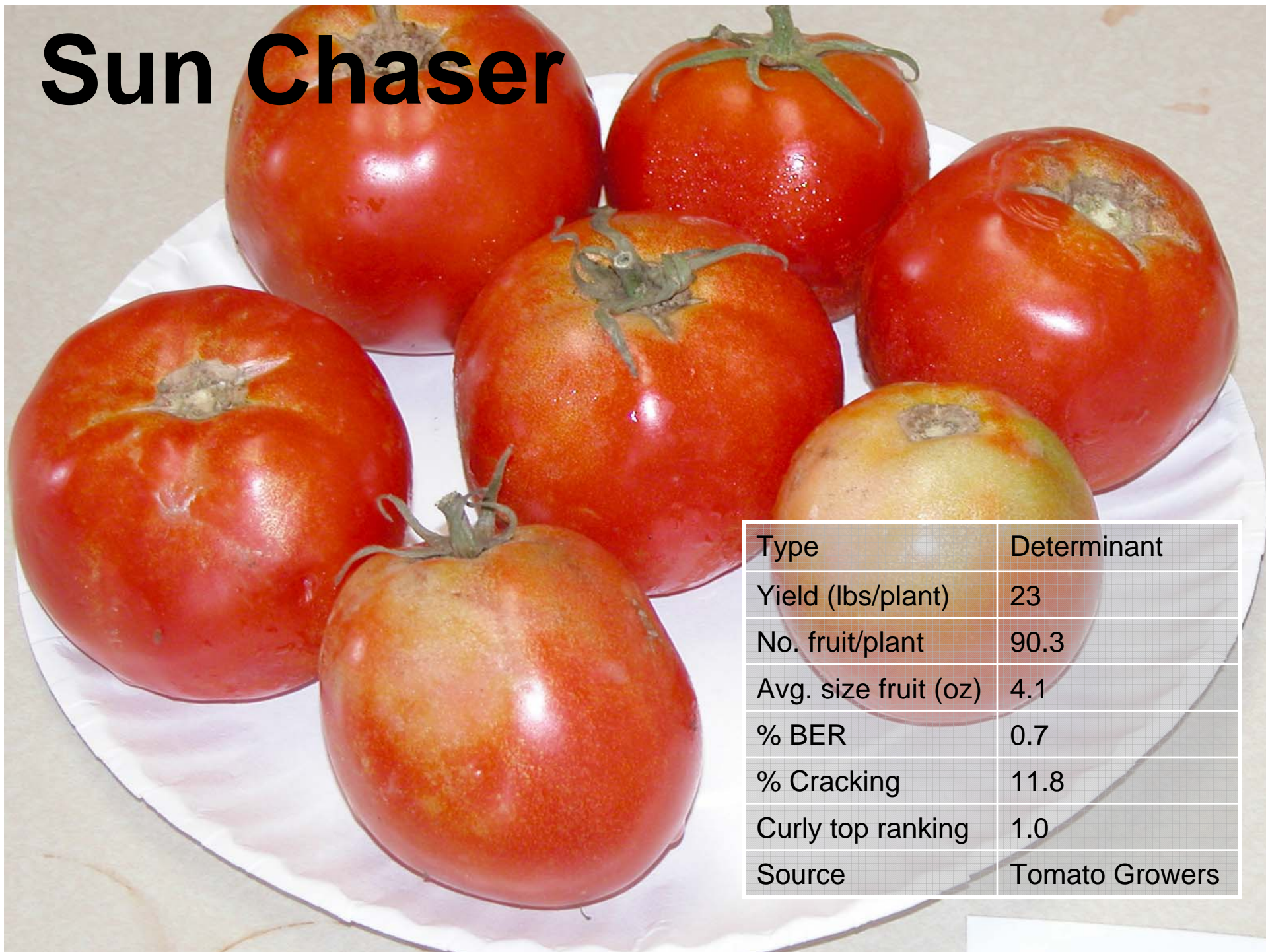
Stokes

Sunbeam



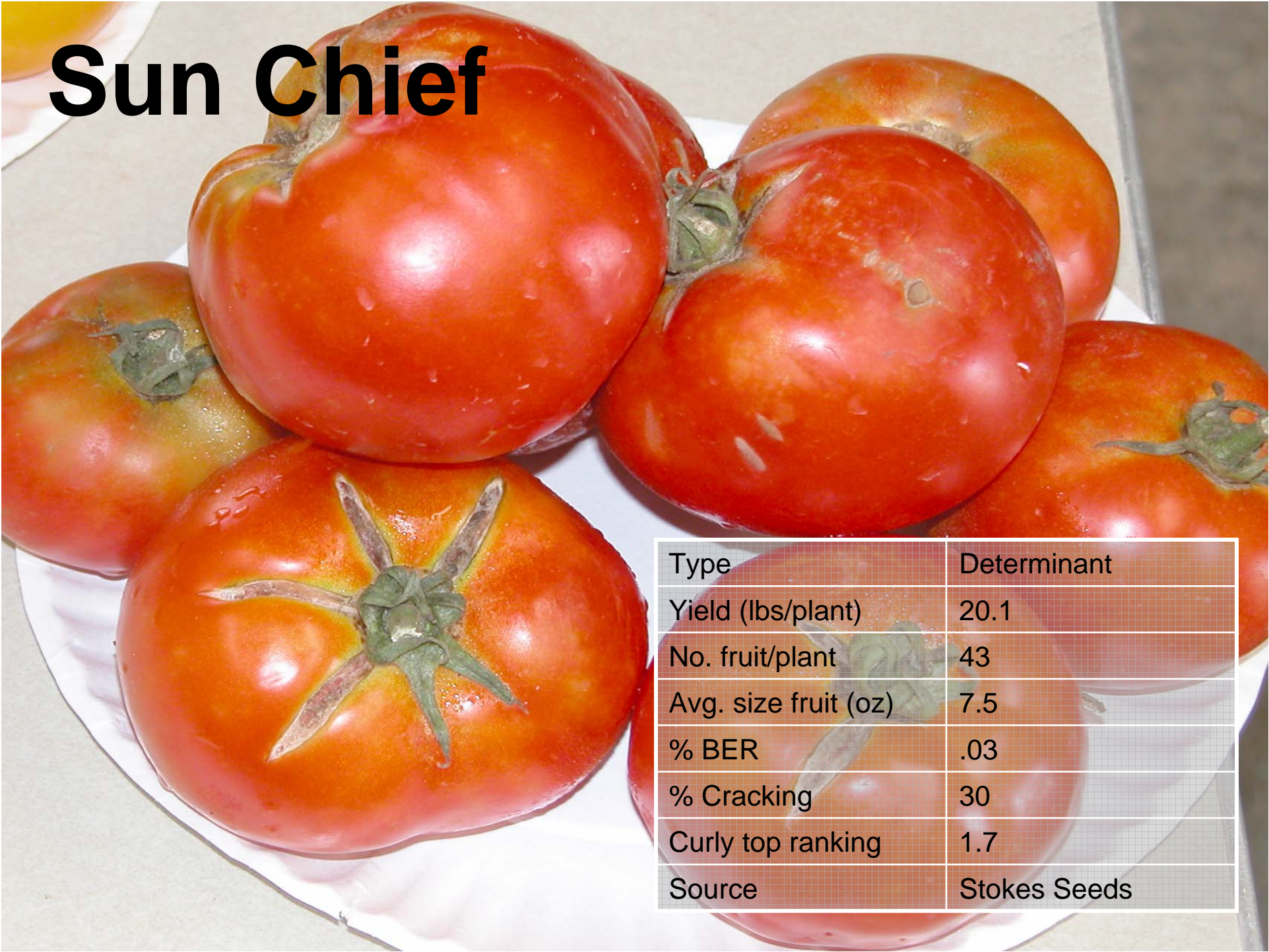
Type	Determinant
Yield (lbs/plant)	32
No. fruit/plant	84
Avg. size fruit (oz)	6.1
% BER	0.5
% Cracking	26.7
Curly top ranking	1.7
Source	Tomato Growers

Sun Chaser



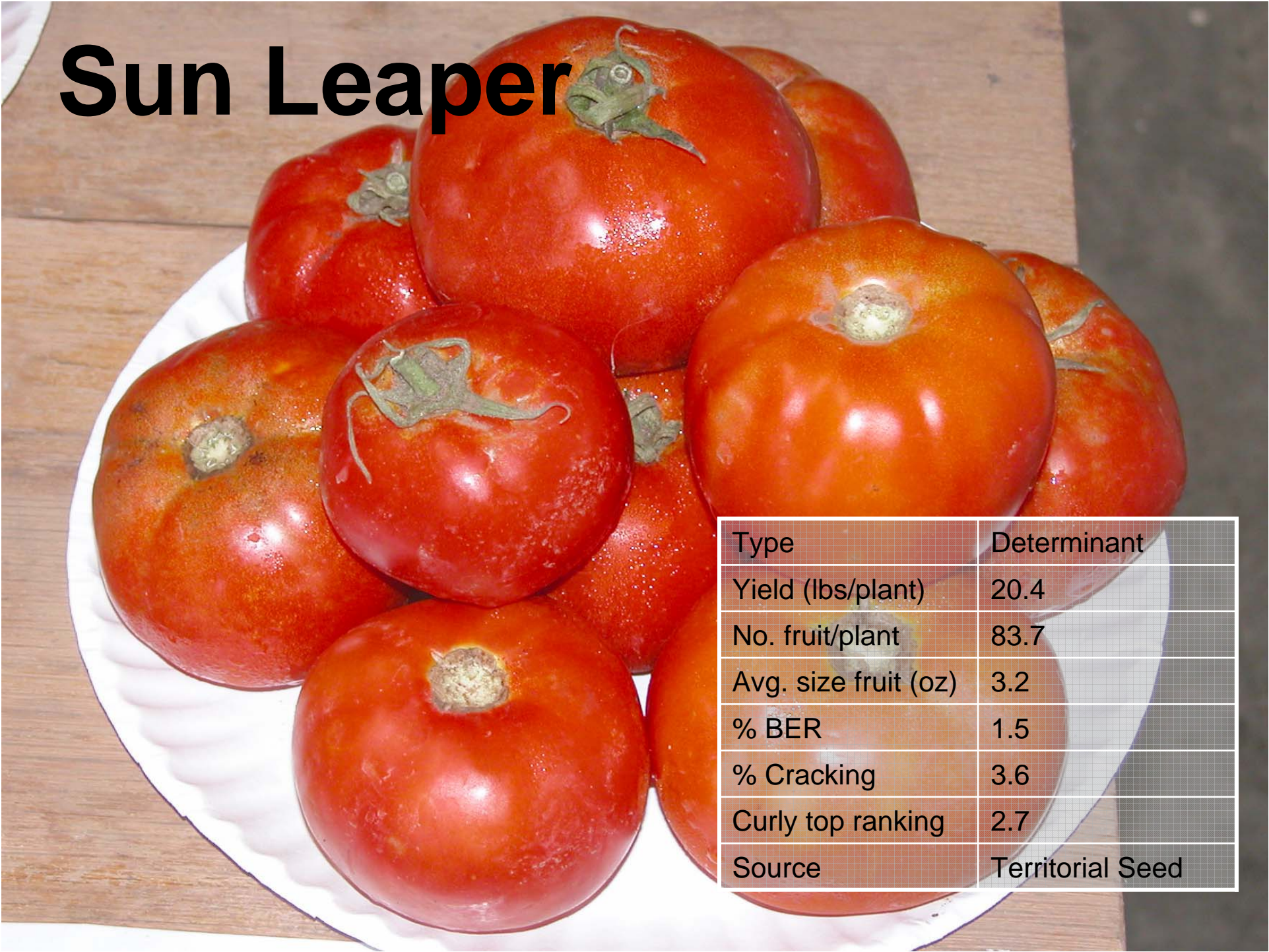
Type	Determinant
Yield (lbs/plant)	23
No. fruit/plant	90.3
Avg. size fruit (oz)	4.1
% BER	0.7
% Cracking	11.8
Curly top ranking	1.0
Source	Tomato Growers

Sun Chief



Type	Determinant
Yield (lbs/plant)	20.1
No. fruit/plant	43
Avg. size fruit (oz)	7.5
% BER	.03
% Cracking	30
Curly top ranking	1.7
Source	Stokes Seeds

Sun Leaper



Type	Determinant
Yield (lbs/plant)	20.4
No. fruit/plant	83.7
Avg. size fruit (oz)	3.2
% BER	1.5
% Cracking	3.6
Curly top ranking	2.7
Source	Territorial Seed

Sunmaster



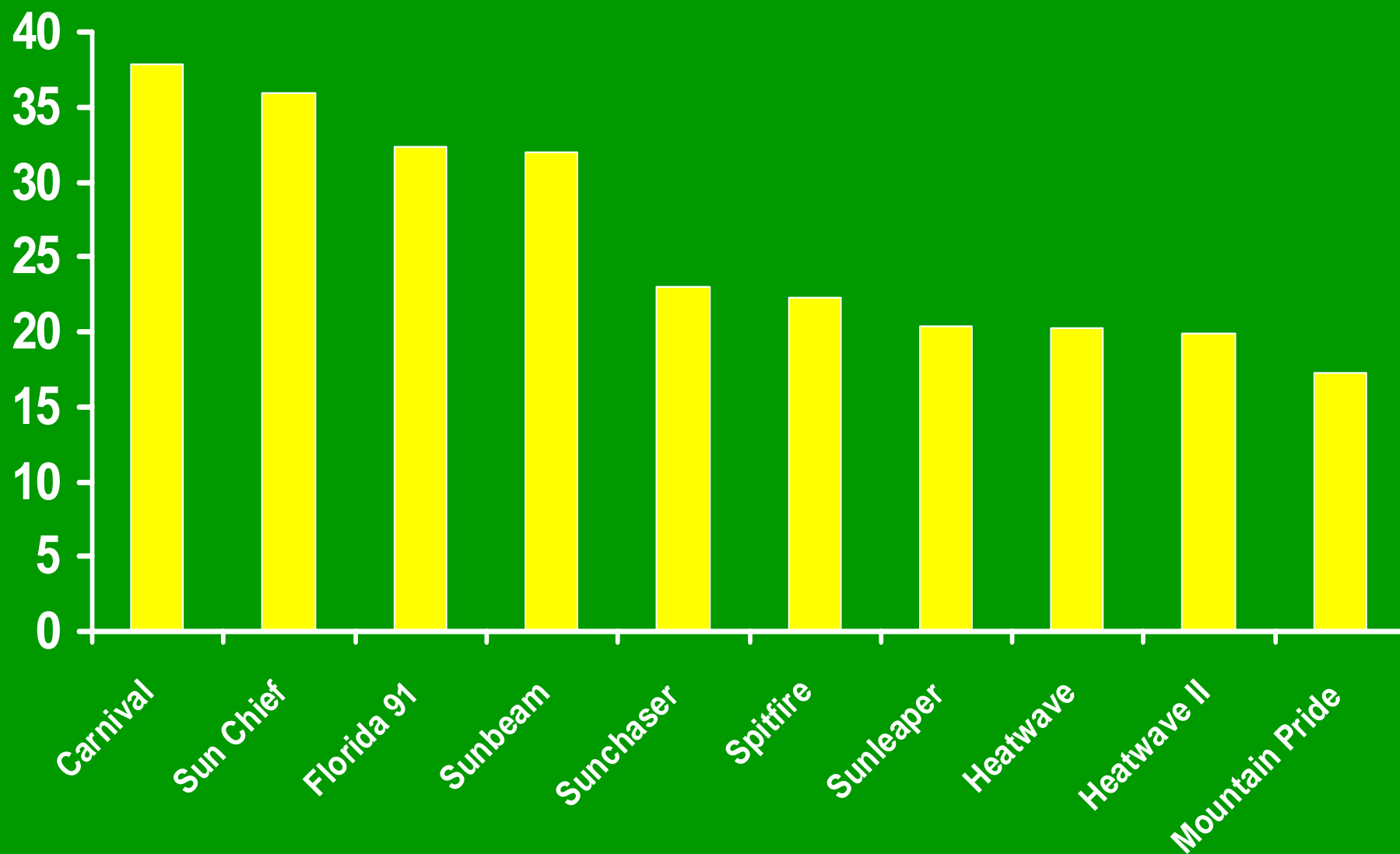
Type	Determinant
Yield (lbs/plant)	5.8
No. fruit/plant	30.7
Avg. size fruit (oz)	1.9
% BER	0.5
% Cracking	11.1
Curly top ranking	3.0
Source	Tomato Growers

Taxi

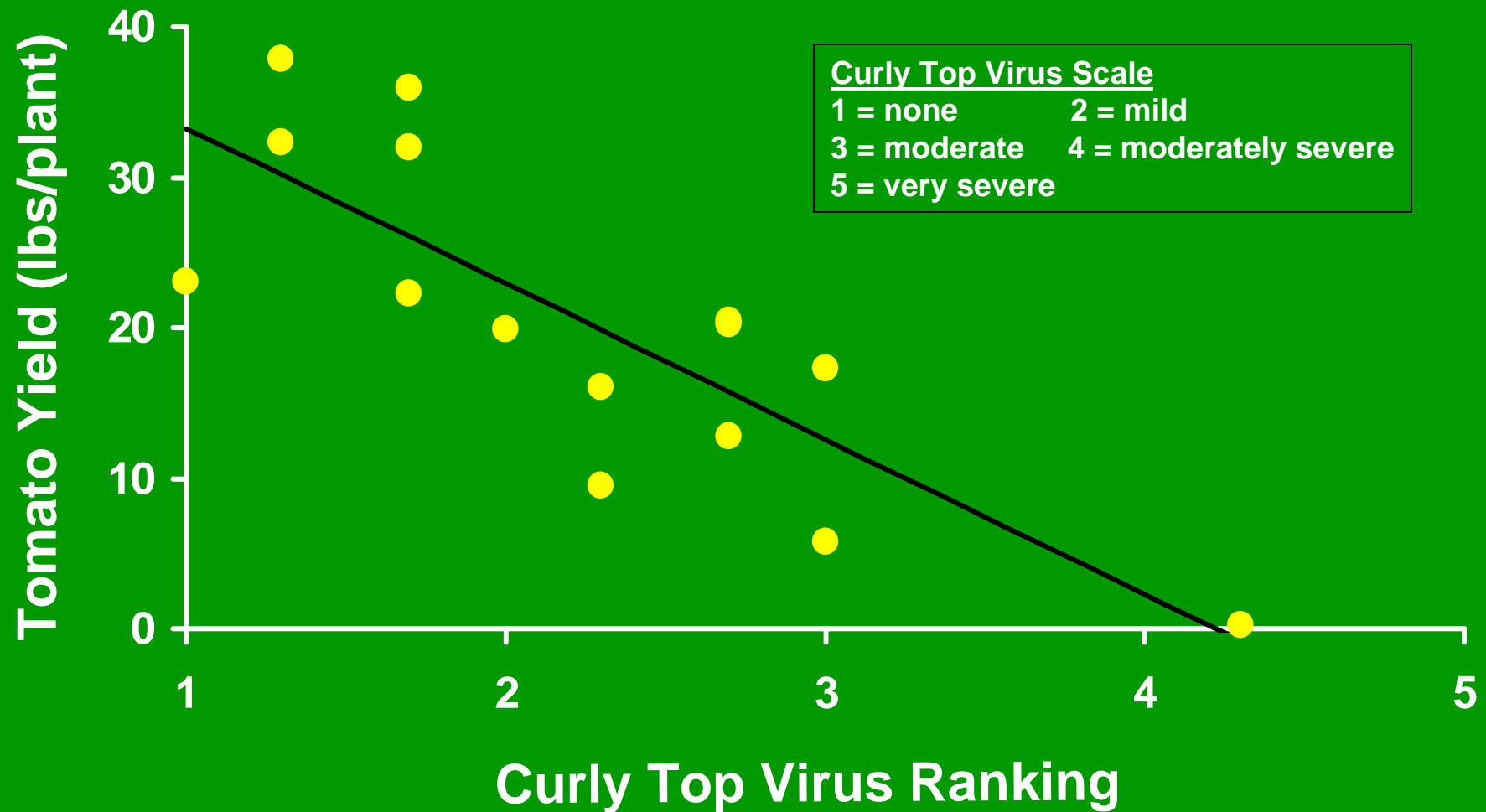
A photograph of a white plate filled with several bright yellow, round tomatoes. The tomatoes have a smooth, glossy skin and some still have their green stems attached. The plate is set against a light-colored, neutral background.

Type	Determinant
Yield (lbs/plant)	16.1
No. fruit/plant	100
Avg. size fruit (oz)	2.4
% BER	0
% Cracking	18.5
Curly top ranking	2.3
Source	Johnny's Selected

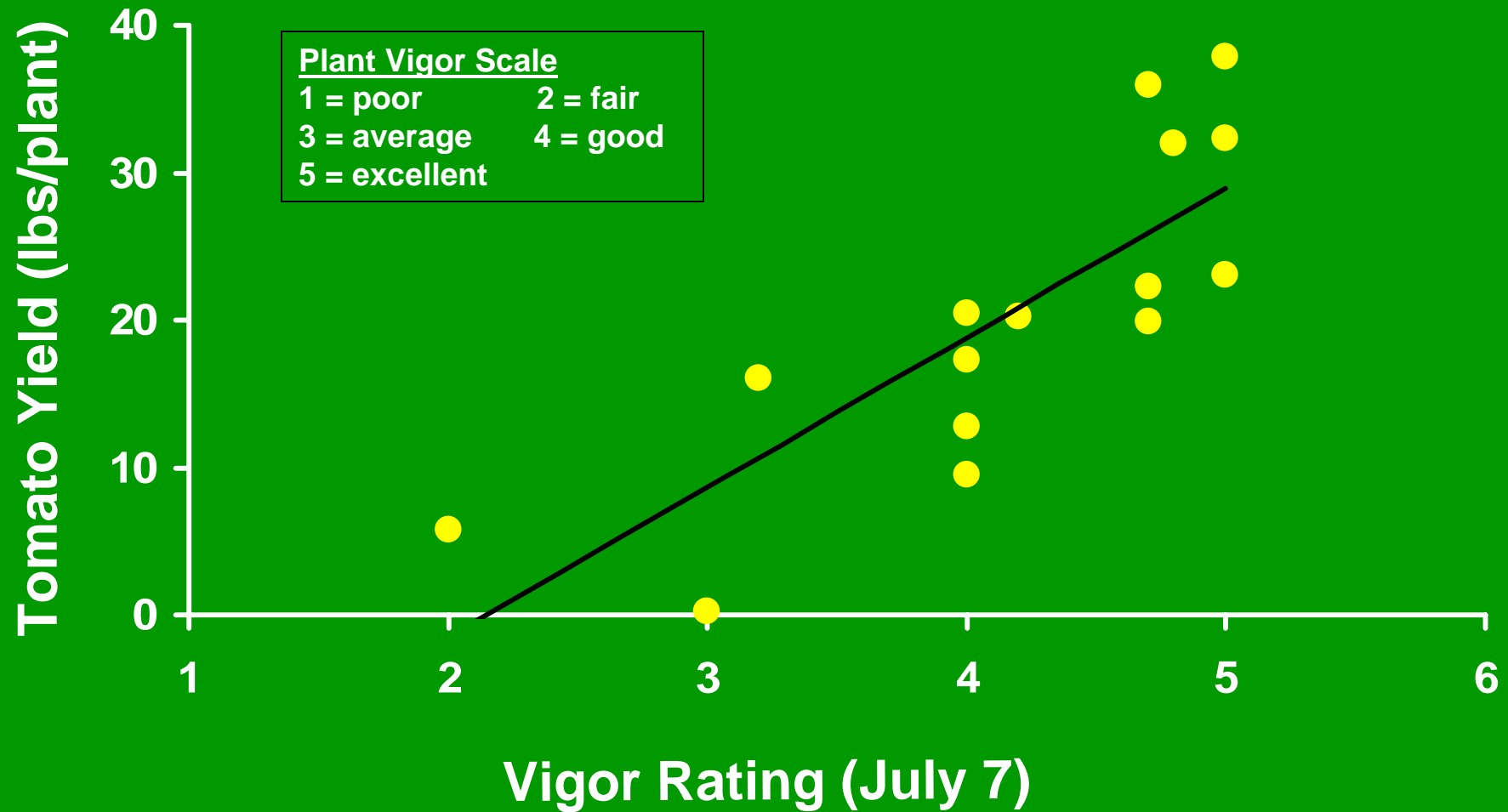
2004 Top 10 Tomato Yields (lbs/plant)



Tomato Yield Comparison to Susceptibility of Curly Top Virus in West Texas: 2004



Tomato Yield Comparison to Early Plant Vigor in West Texas: 2004



Results

- Tomato varieties that performed well include Carnival, Sun Chief, Florida 91, Sunbeam and Sunchaser.
- Higher ratings of curly top virus (more severe symptoms) were associated with lower yields in this study.
- Improved early plant vigor was associated with higher overall yields.

Results

- Indeterminant varieties (Box Car Willie and Brandywine) had lower yields, likely a response to infection by curly top virus.
- Brandywine (an heirloom variety) had poor tolerance to curly top virus and may not be a suitable variety for the Texas High Plains.