

No.8

# Seminar I on Agricultural Process Engineering 農産加工学演習 I

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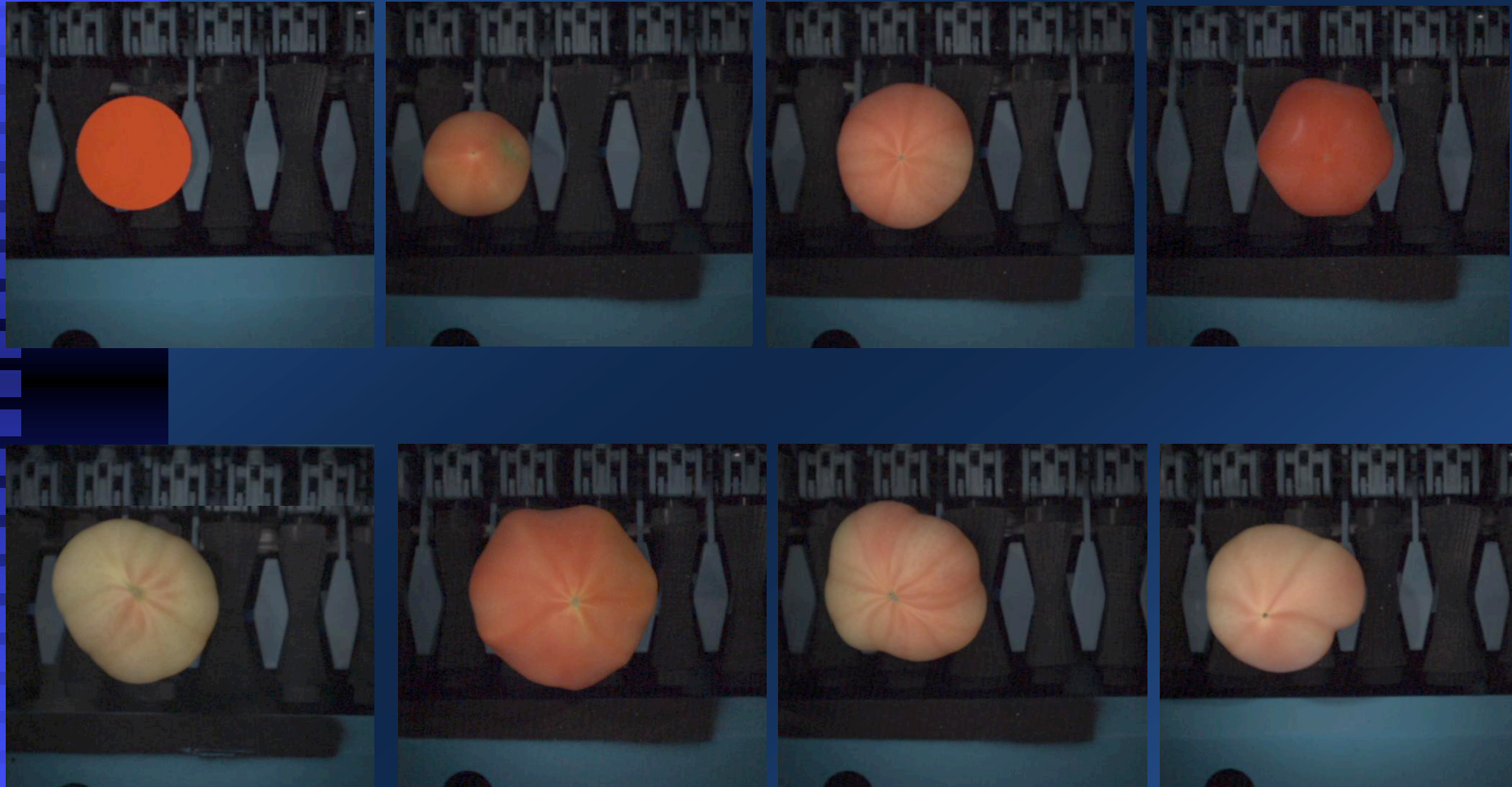
農学研究科 地域環境科学専攻

近藤 直・清水 浩

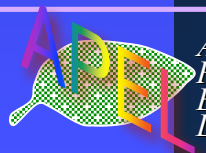
# Practice

1. Color analysis
2. Size measurement
3. Shape analysis
4. Defect detection

# Objects for shape



Choose 10 tomato fruits and make graphs.



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# Size measurement

Area

Feret's diameter

Perimeter

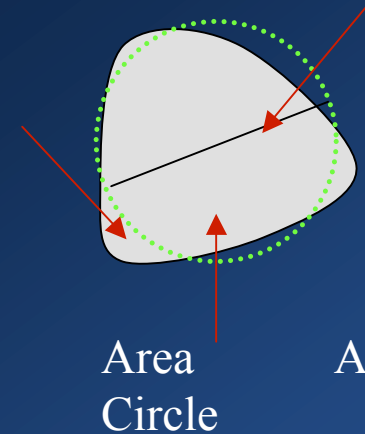
Maximum length

Breadth

Equivalent circle diameter

Area A  
Original figure

Diameter of Area A circle



Equivalent circle diameter

# Shape analysis

Complexity

Feret's diameter ratio

Circularity factor

Occupancy

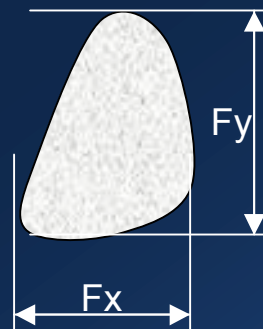
Moment

Deformation from gravity center

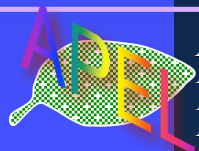
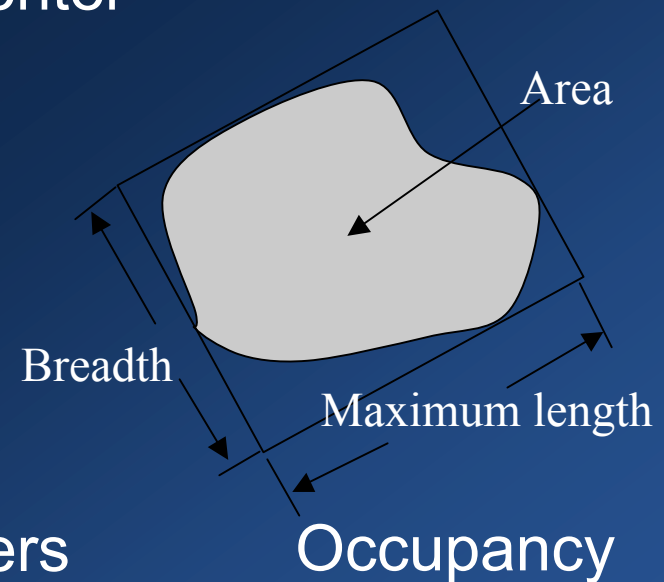
Roundness

Bend

.....



Feret's diameters



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Assignment: Make graphs of shape analysis  
by three features (including your original one)

**+ Discussions**

