

**THE VISUAL AIDS ON THE FOLLOWING
PAGES ARE FOR REFERENCE ONLY AND
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**TO PURCHASE OFFICIAL VISUAL AIDS PLEASE CONTACT
THE SPECIALTY CROPS INSPECTION DIVISION'S
EQUIPMENT AND FORMS DEPOT**

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[EQUIPMENT CATALOG](#)

It is often necessary to remove the dry outer scales to properly judge whether an onion is damaged or seriously damaged by watery fleshy scales. The following two photos of the same onion illustrate this point.



Presence of dry brown outer scale gives impression that onion is damaged by discolored watersoaked fleshy scales.



Removal of dry brown outer scale shows onion to be damaged.

C-1
Cut Onion: Scale Present & Removed
March 1990 (previously undated)

THESE PICTURES ILLUSTRATE CHARACTERISTICS OF DORMANT AND GROWING ONIONS

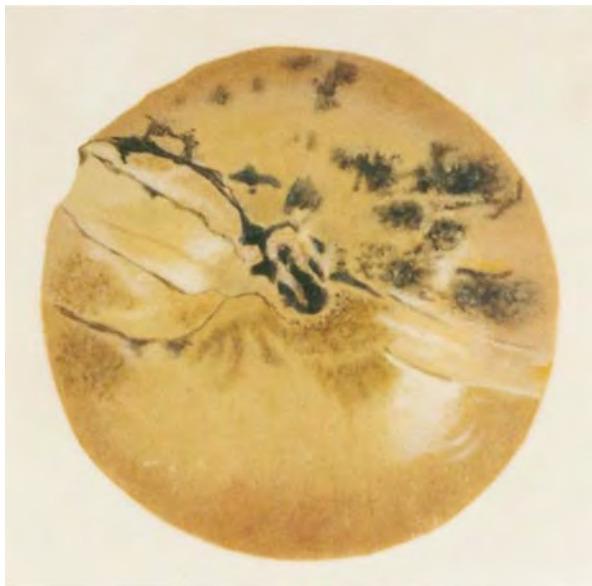


The onion on the left has a completely white heart, characteristic of a dormant onion, while the onion on the right has a yellow, growing onion.



A thin slice (1/16 to 1/8 inch) was removed from the bottom of each of two onions. The vascular bundles are not noticeable in the dormant onion on the left, but enlarged vascular bundles are evident in the onion on the right, indicating that growth has started.

C-2
Cut Onions Showing Dormancy & New Growth
March 1990 (previously undated)



C-10
APPRECIABLY STAINED
MARCH 1990 (previously undated)



C-11
BADLY STAINED
MARCH 1990 (previously undated)

SHAPE ON ONIONS



SCORE AS DAMAGE



SCORE AS DAMAGE



SCORE AS DAMAGE

Ons-CP-3
Shape
April 1990
(Previously October 1971,
Side I)

SHAPE ON ONIONS



**LOWER LIMIT
FAIRLY WELL SHAPED**



**LOWER LIMIT
FAIRLY WELL SHAPED**

**ONS-CP-3-A
Shape
April 1990 (Previously October 1971, Side II)**

STAINING



APPRECIABLY STAINED

(onions with appearance affected to a lesser degree would not be considered appreciably stained)

Examples of Damage by Dry Sunken Areas on Northern (Other than) Onions

Condition: Until October 31 of the year of production; imports year round. Quality: November 1 until the end of the crop year.
Onions not covered by outer papery scales, score as damage when exceeding the equivalent of a circle 1/2 inch in dia. (shown below).
Onions covered by outer papery scales, score as damage when exceeding the equivalent of a circle 3/4 inches in dia. (not shown).
Scoring guide based on an onion 2-3/4 inches in dia. (shown below).



Circles show location of dry sunken areas.

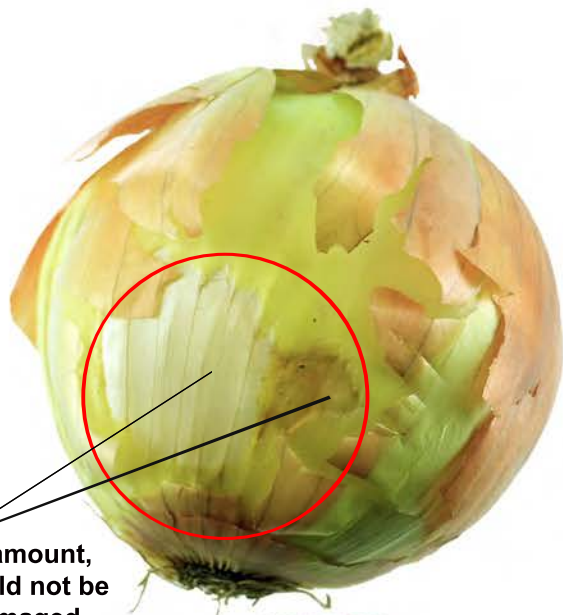
USDA Visual Aid ONS-CP-12 Jan 2017

Examples of Serious Damage by Dry Sunken Areas on Northern (Other Than) Onions

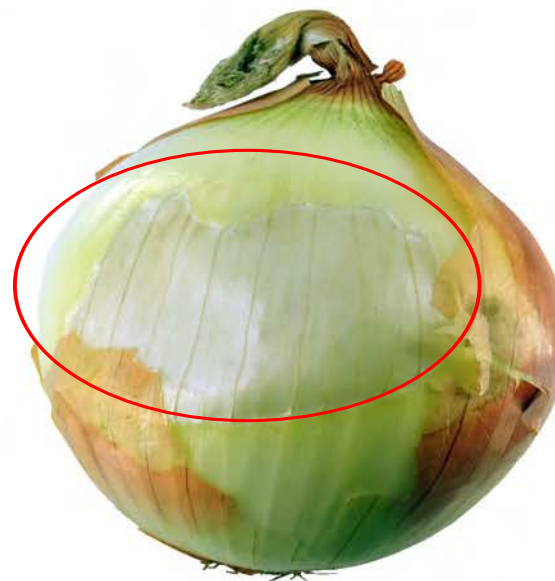
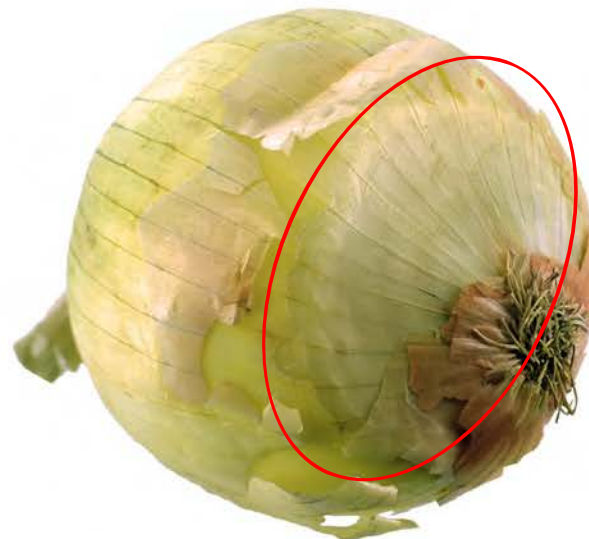
Condition: Until October 31 of the year of production; imports year round. Quality: November 1 until the end of the crop year.

Serious damage: When extending deeper than 1 fleshy scale, or a circle equal to 1 inch or larger in dia. (shown below).

Scoring guide based on an onion 2-3/4 inches in dia. (shown below).



If any lesser amount,
this onion would not be
seriously damaged



Circles show location of dry sunken areas.
USDA Visual Aid ONS-CP-13 Jan 2017

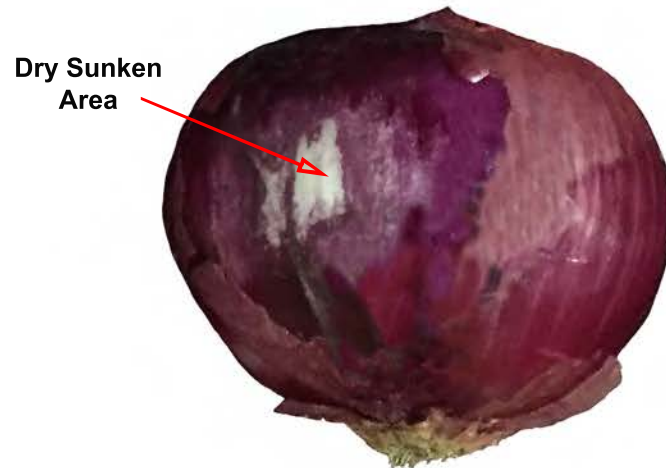
Not Scorable by Dry Sunken Areas on Northern (Other Than) Onions
Based on 2-3/4 inch diameter onions (shown below).



Dry Sunken Areas mixed with Staining (above photos). Not enough Dry Sunken Areas to score, but combination of defects materially detracts. Go with predominating defect (in this case Staining).



**Slightly Stained (not a Dry Sunken Area)
Not Scorable**



**Not enough Dry Sunken Areas
Not scorable**

Internal Sprouts on Onions



Not scorable.
Does not penetrate
any fleshy scale
(runs parallel).

Scorable (damage).
Penetrates one fleshy scale.

Condition factor.

Damage: When penetrating one fleshy scale.

Serious Damage: When penetrating more than two fleshy scales.

ONIONS



Purple Blotch

FOR IDENTIFICATION ONLY

**ONS-IDENT-1
MAY 1992**

ONIONS



Purple Blotch

Not Purple Blotch

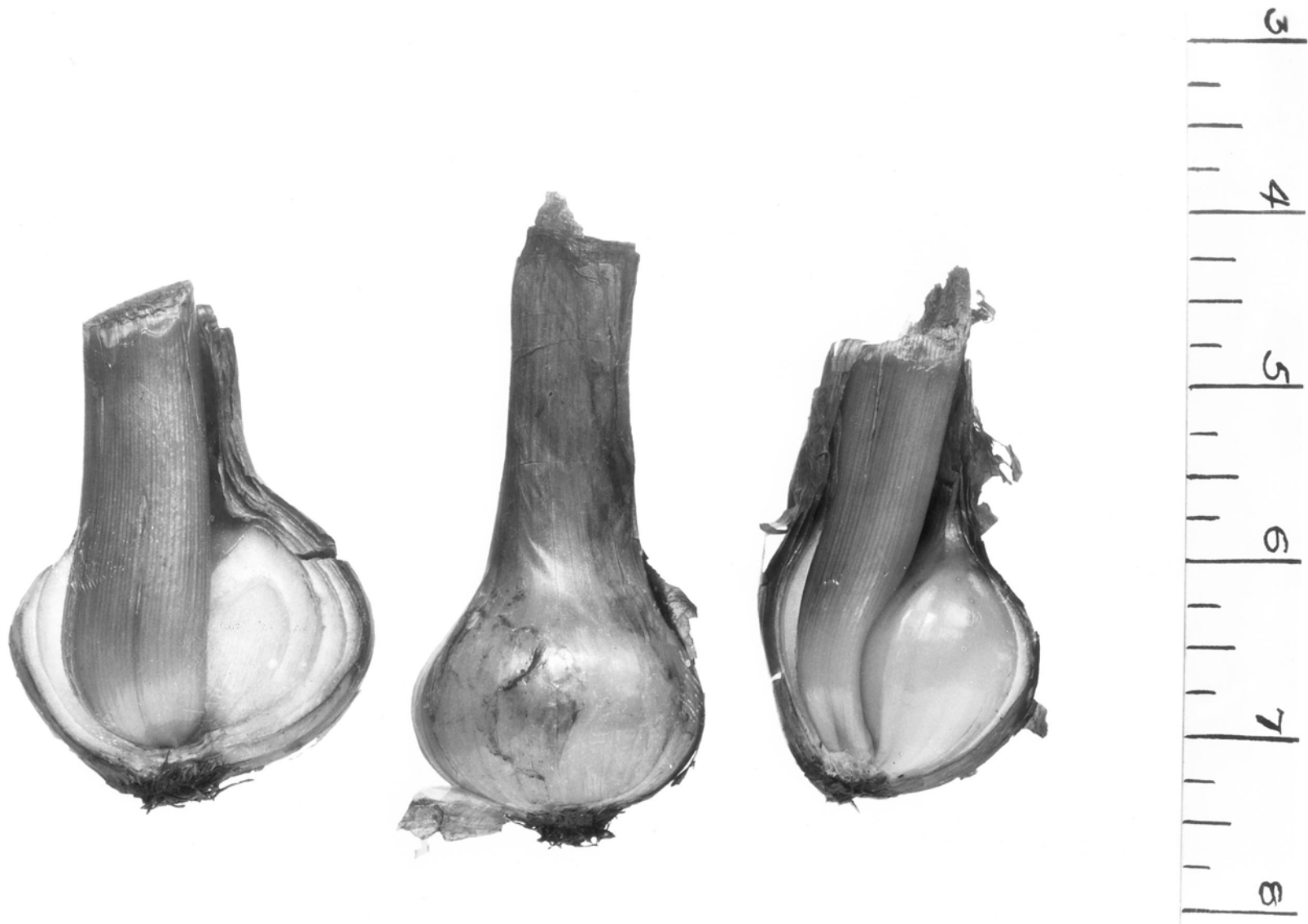
FOR IDENTIFICATION ONLY

**ONS-IDENT-2
MAY 1992**



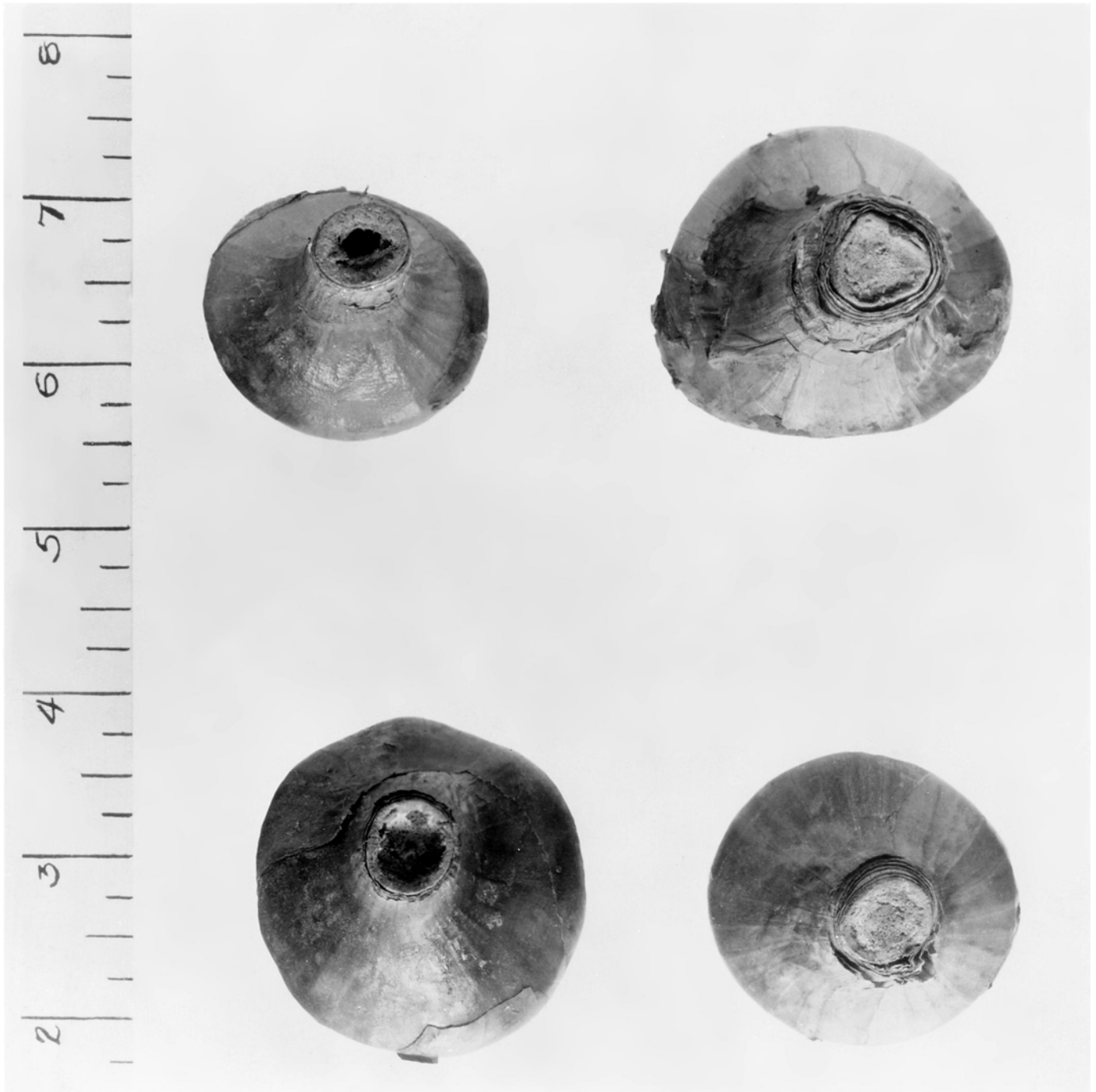
ONIONS WITH EXCESSIVELY LONG ROOTS (SHOWN ABOVE) WHEN IN SUFFICIENT QUANTITY TO MATERIALLY AFFECT THE APPEARANCE OF THE LOT, ARE NOT PERMITTED IN U.S. NO. 1 GRADE.

**Onions, Photo No. 1
April 1990 (Previously No. 1, no date)**



ONION SEEDSTEMS. THE OUTER SPECIMENS ARE LENGTHWISE SECTIONS SHOWING DAMAGE CAUSED BY SEEDSTEMS.

**Onions, Photo No. 2
April 1990 (Previously No. 2, no date)**



ONION SEEDSTEMS SHOWING PITHY AND HOLLOW CENTERS. THE OUTER EDGE OF THE STEMS ARE TOUGH AND WOODY. NOT U.S. NO. 1.

**Onions, Photo No. 3
April 1990 (Previously No. 3, no date)**

SHAPE ON ONIONS



A

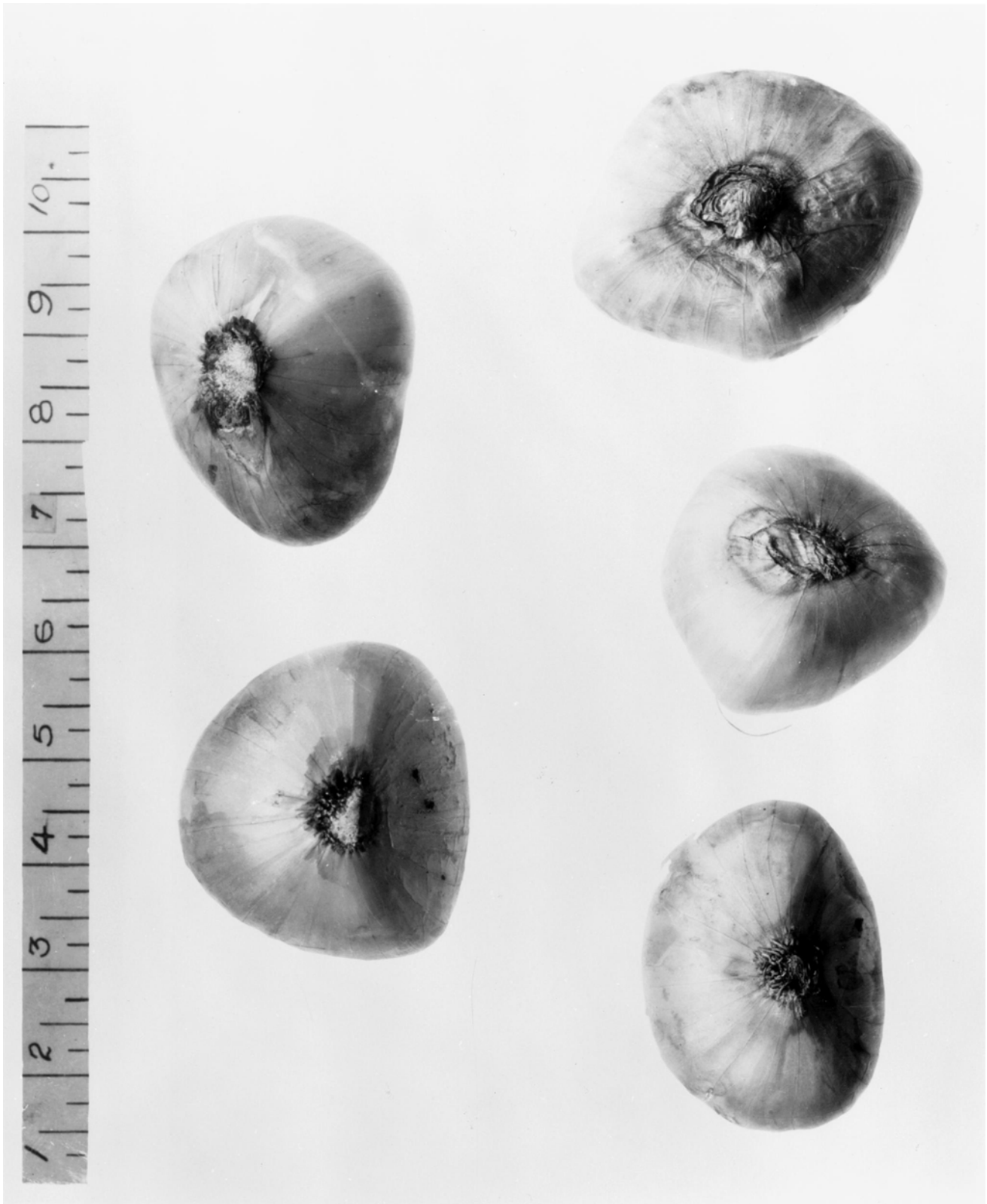
B

C

D

**ONIONS A, B AND D ARE U.S. COMMERCIAL
ONION C IS U.S. NO. 1**

**Onions, Photo No. 4
April 1990 (Previously No. 4, no date)**



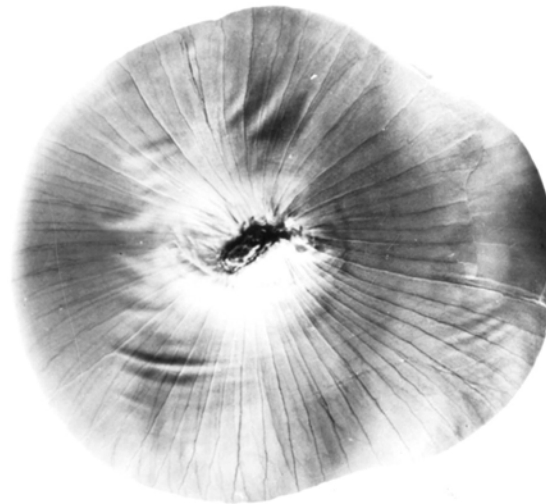
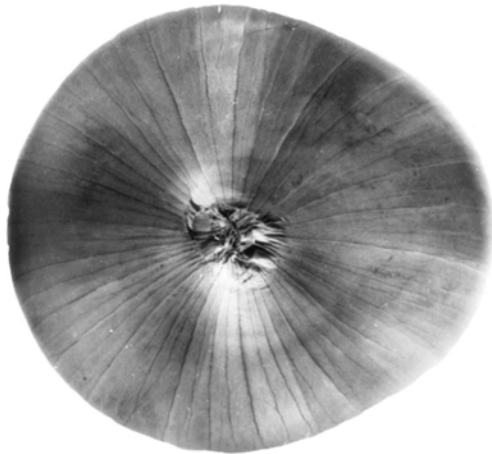
BERMUDA TYPE ONIONS NOT U.S. NO. 1 ACCOUNT OF SHAPE.

**Onions, Photo No. 7
April 1990 (Previously No. 7, no date)**

A



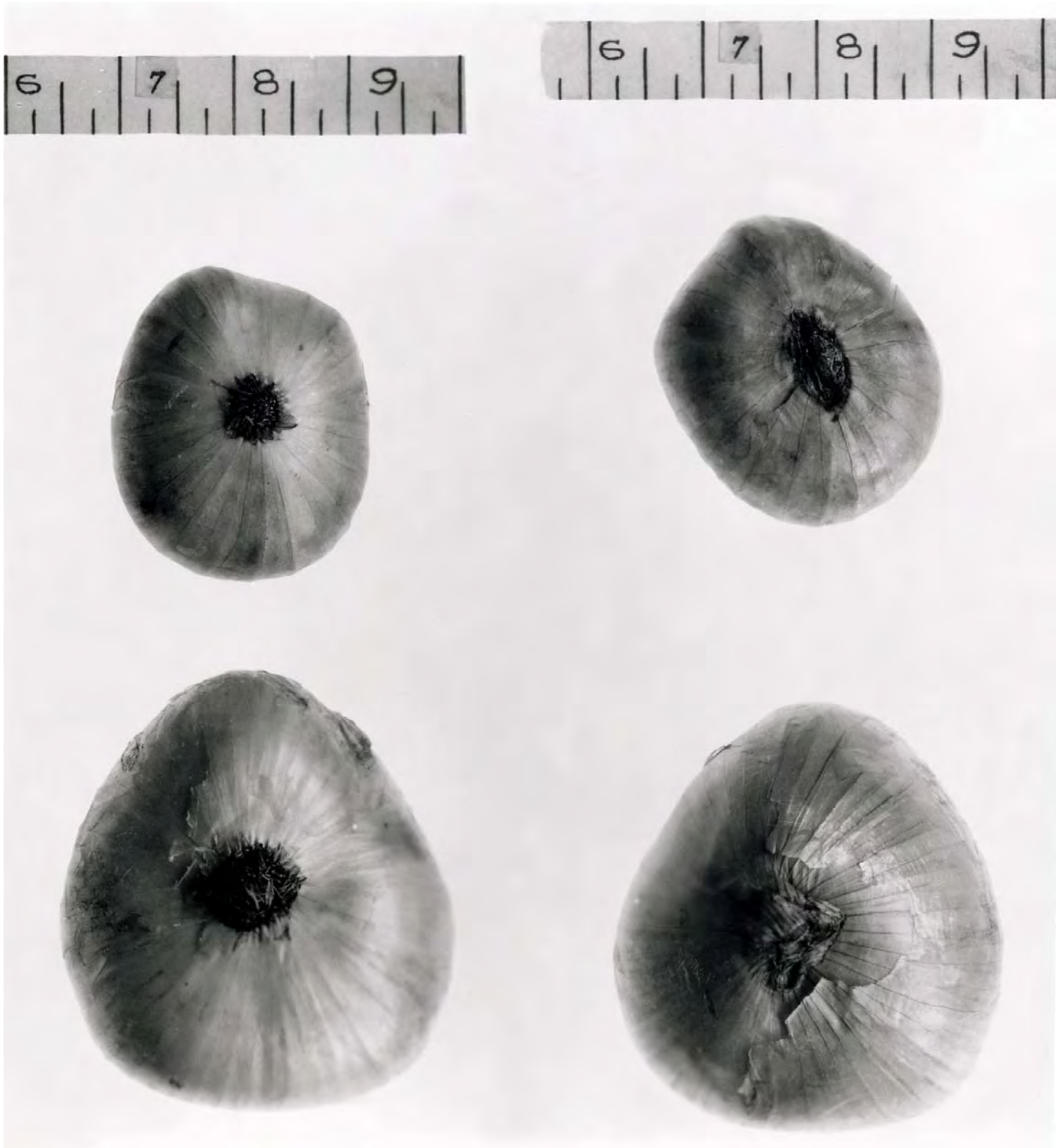
B



A. U.S. NO. 1 FOR SHAPE

B. U.S. COMMERCIAL FOR SHAPE

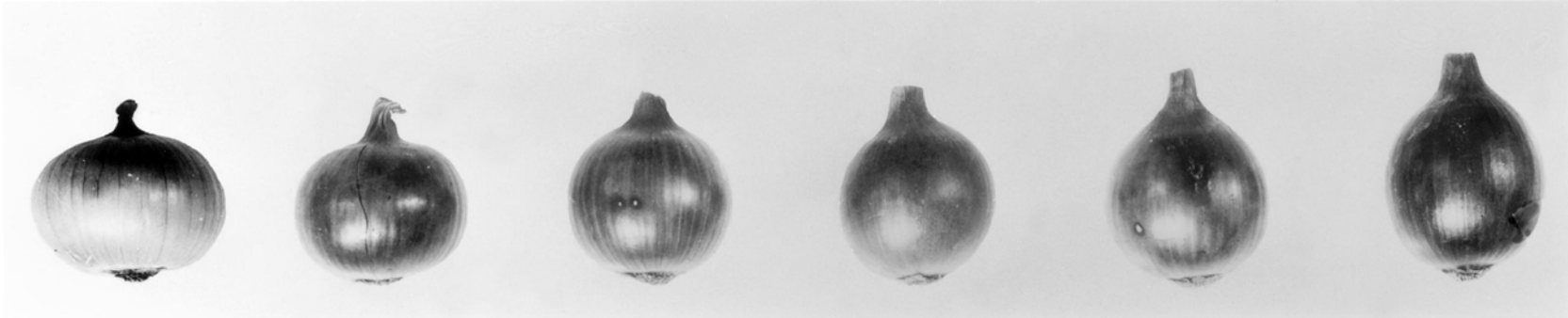
**Onions, Photo No. 8
April 1990 (Previously No. 8, no date)**



**DIFFERENT VIEW OF THE SAME ONIONS
BERMUDA TYPE ONIONS U.S. NO. 1. ILLUSTRATING SHAPE.**

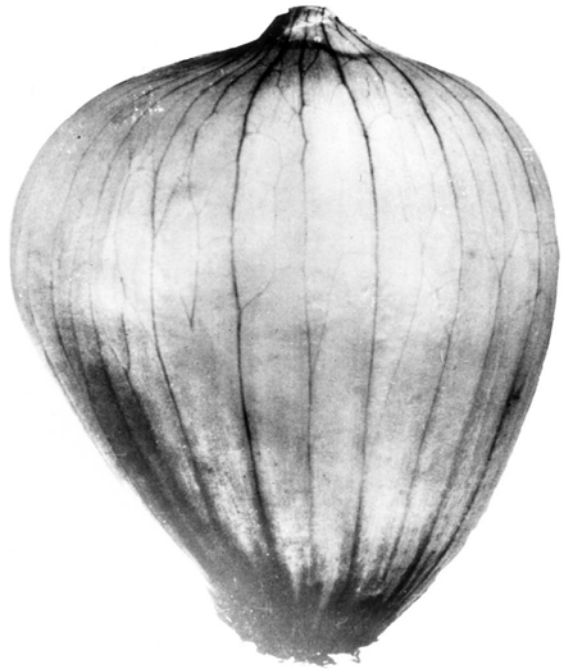
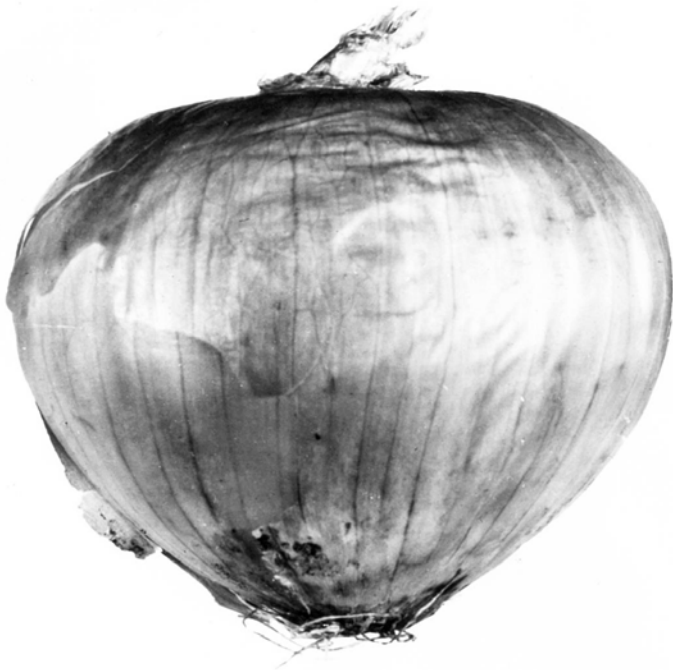
**Onions, Photo No. 9
April 1990 (Previously No. 9, no date)**

SHAPE ON ONIONS



ONION ON EXTREME LEFT IS CONSIDERED FLAT. ONIONS NOT FLATTER THAN OTHER FIVE ARE CONSIDERED GLOBE SHAPE.

**Onions, Photo No. 10
April 1990 (Previously No. 10, no date)**



GRANEX-GRANO TYPE ONIONS. SHAPES PERMITTED IN U.S. NO. 1 GRADE FOR GRANEX-GRANO ONIONS.

**Onions, Photo No. 13
April 1990 (Previously No. 13, no date)**

ONIONS SLIDE 1 – LOOSE SKIN



ONIONS SLIDE 2 – EXCESSIVE TOPS



ONIONS SLIDE 3 – DRY ROOTS



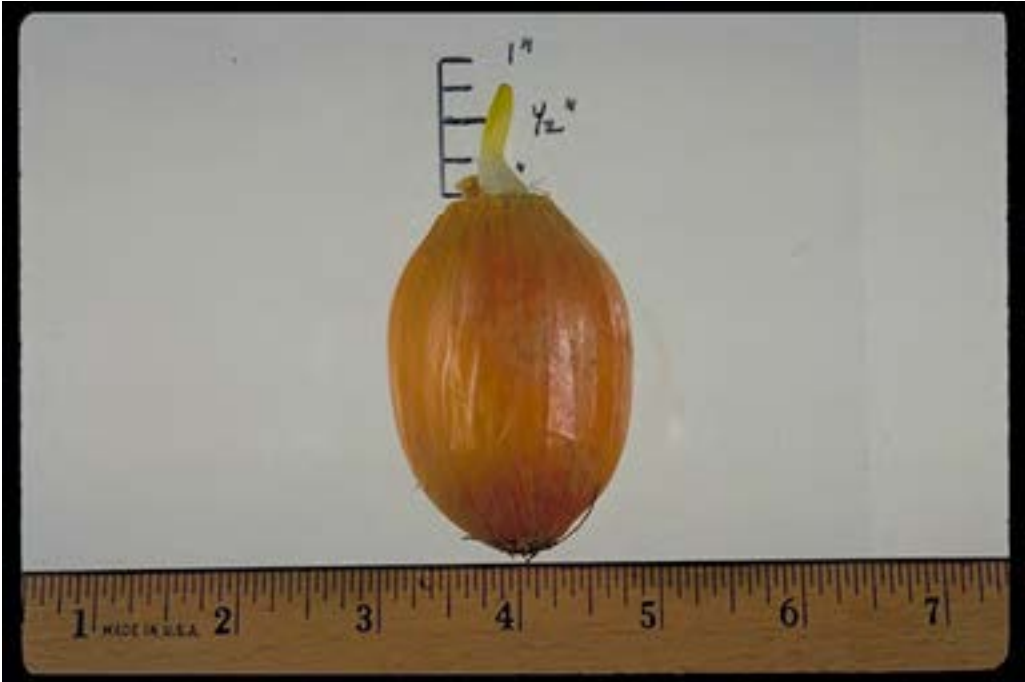
ONIONS SLIDE 4 – VISIBLE SPROUTS



ONIONS SLIDE 5 – CONCEALED SPROUTS



ONIONS SLIDE 6 – CONCEALED SPROUTS CUT



ONIONS SLIDE 7 – INSECT INJURY



ONIONS SLIDE 8 – INSECT INJURY



ONIONS SLIDE 9 – DISSIMILAR VARIETAL



ONIONS SLIDE 10 -- BOTTLENECK



ONIONS SLIDE 11 – NEW ROOT GROWTH



ONIONS SLIDE 12 -- PEELER



ONIONS SLIDE 13 – CLOSELY TRIMMED



ONIONS SLIDE 14 -- DOUBLE



ONIONS SLIDE 15 -- SPLIT



ONIONS SLIDE 16 -- SPLIT



ONIONS SLIDE 17 – MISSHAPEN OR SPLIT



ONIONS SLIDE 18 – CRACKED PAPERY SCALES



ONIONS SLIDE 19 -- SUNBURN



ONIONS SLIDE 20 -- SUNSCALD



ONIONS SLIDE 21 – BLACK SURFACE MOLD



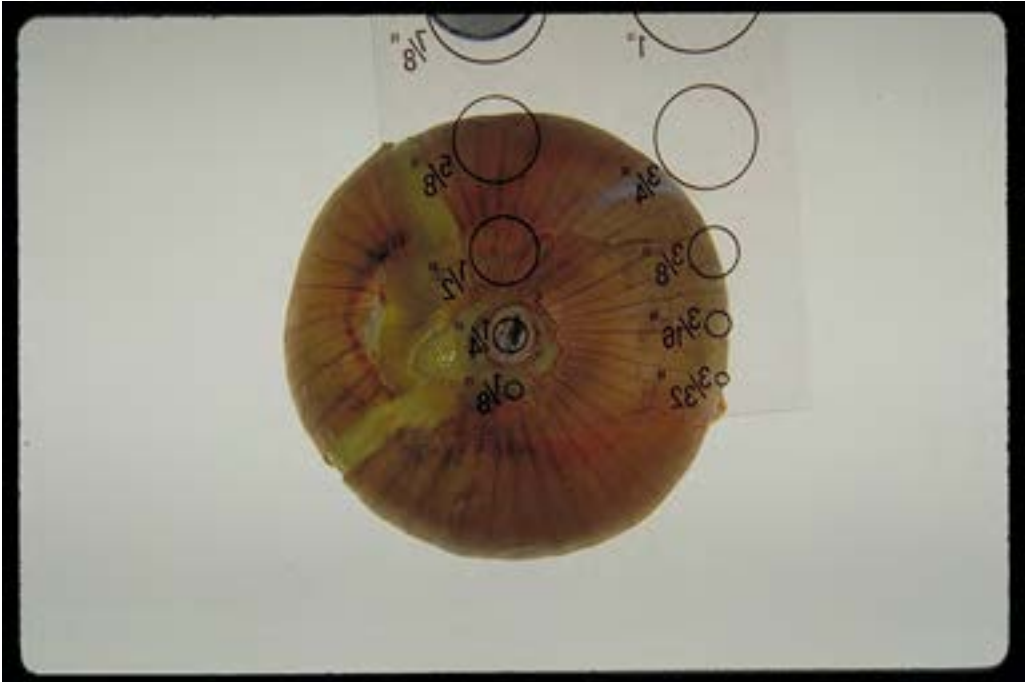
ONIONS SLIDE 22 – BLACK MOLD BETWEEN SCALES



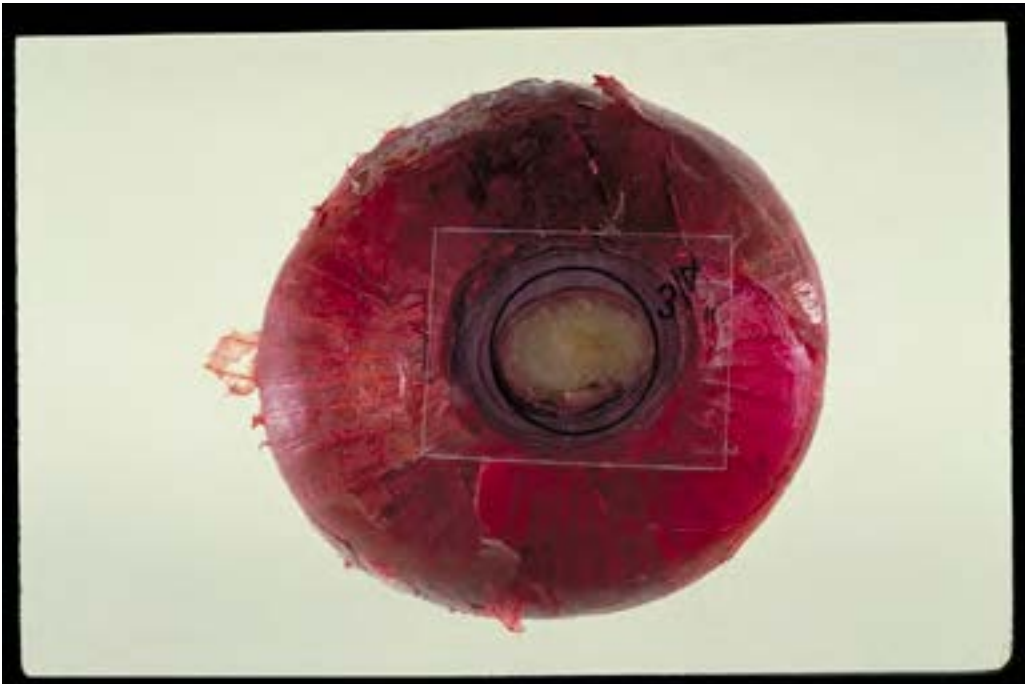
ONIONS SLIDE 23 -- DIRT



ONIONS SLIDE 24 -- SEEDSTEM



ONIONS SLIDE 25 -- SEEDSTEM



ONIONS SLIDE 26 -- CUT



ONIONS SLIDE 27 -- CUT



ONIONS SLIDE 28 -- CUT



ONIONS SLIDE 29 – WATERY OR TRANSLUCENT SCALES



ONIONS SLIDE 30 – WATERY SCALES



ONIONS SLIDE 31 – TRANSLUCENT AND WATERY SCALES



ONIONS SLIDE 32 -- CUT



ONIONS SLIDE 33 – SLIGHTLY STAINED



ONIONS SLIDE 34 – APPRECIABLY STAINED



ONIONS SLIDE 35 – BADLY STAINED



ONIONS SLIDE 36 – DECAY IN NECK



ONIONS SLIDE 37 – FUSARIUM BULB ROT



ONIONS SLIDE 38 – FUSARIUM BULB ROT CUT



ONIONS SLIDE 39 – BLUE MOLD ROT



ONIONS SLIDE 133

