THE VISUAL AIDS ON THE FOLLOWING PAGES ARE FOR REFERENCE ONLY AND NOT INTENDED FOR OFFICIAL USE.

TO PURCHASE OFFICIAL VISUAL AIDS PLEASE CONTACT THE SPECIALTY CROPS INSPECTION DIVISION'S EQUIPMENT AND FORMS DEPOT

USDA, AMS, FVP, SCI
831 MITTEN ROAD, ROOM 200
BURLINGAME, CA 94010
PHONE: 650-552-9073
FAX: 650-552-9147

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.

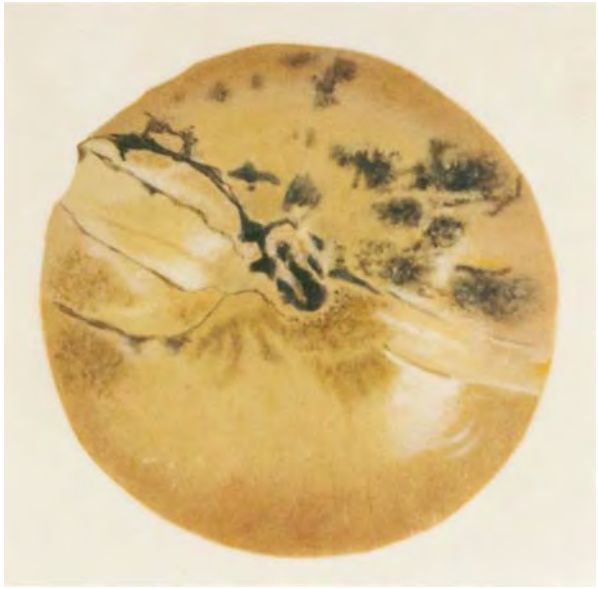
C-1
Cut Onion: Scale Present & Removed
March 1990 (previously undated)

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 nboticeable 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)

ONS-CP-10A
JULY 1999

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

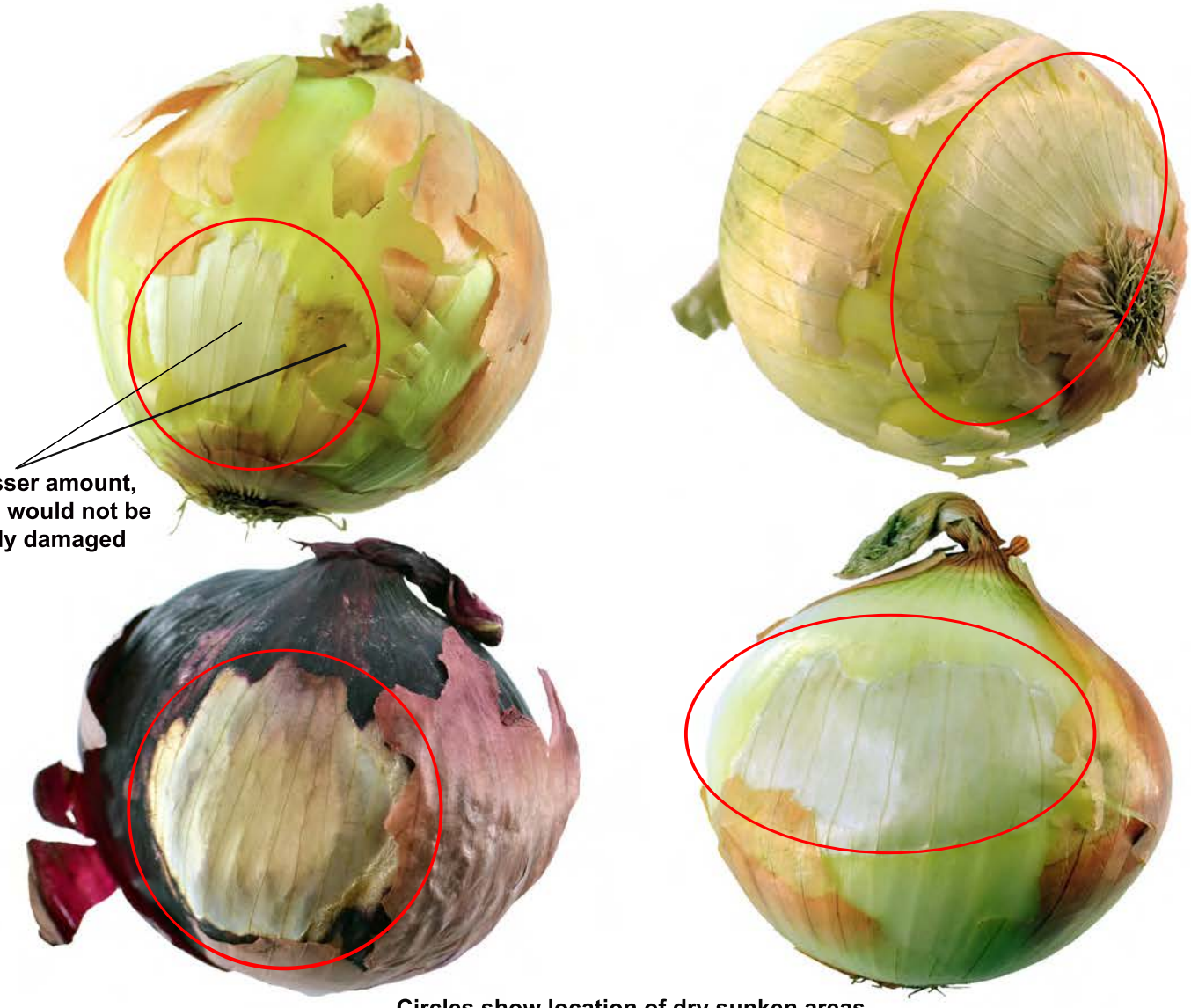
Condition: Until October 31 of the year of production; imports year round. Quality: November 1 until the end of the crop year.
Onions not covered by outer papery scales, score as damage when exceeding the equivalent of a circle 1/2 inch in dia. (shown below).
Onions covered by outer papery scales, score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

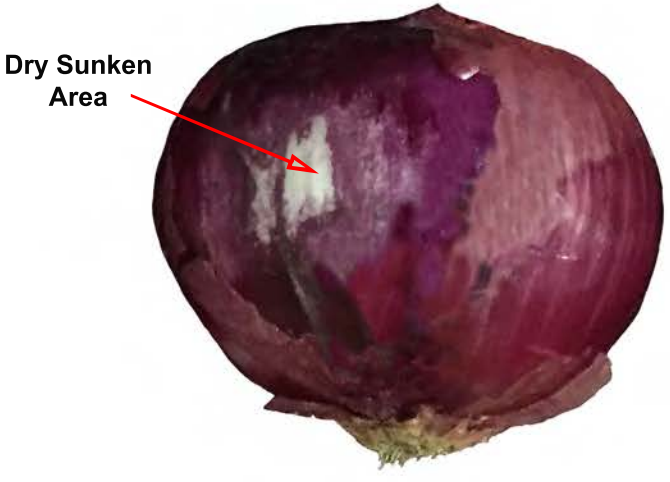
USDA Visual Aid ONS-CP-13 Jan 2017

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

ONIONS

Purple Blotch

FOR IDENTIFICATION ONLY

ONIONS

Purple Blotch **Not Purple Blotch**

FOR IDENTIFICATION ONLY

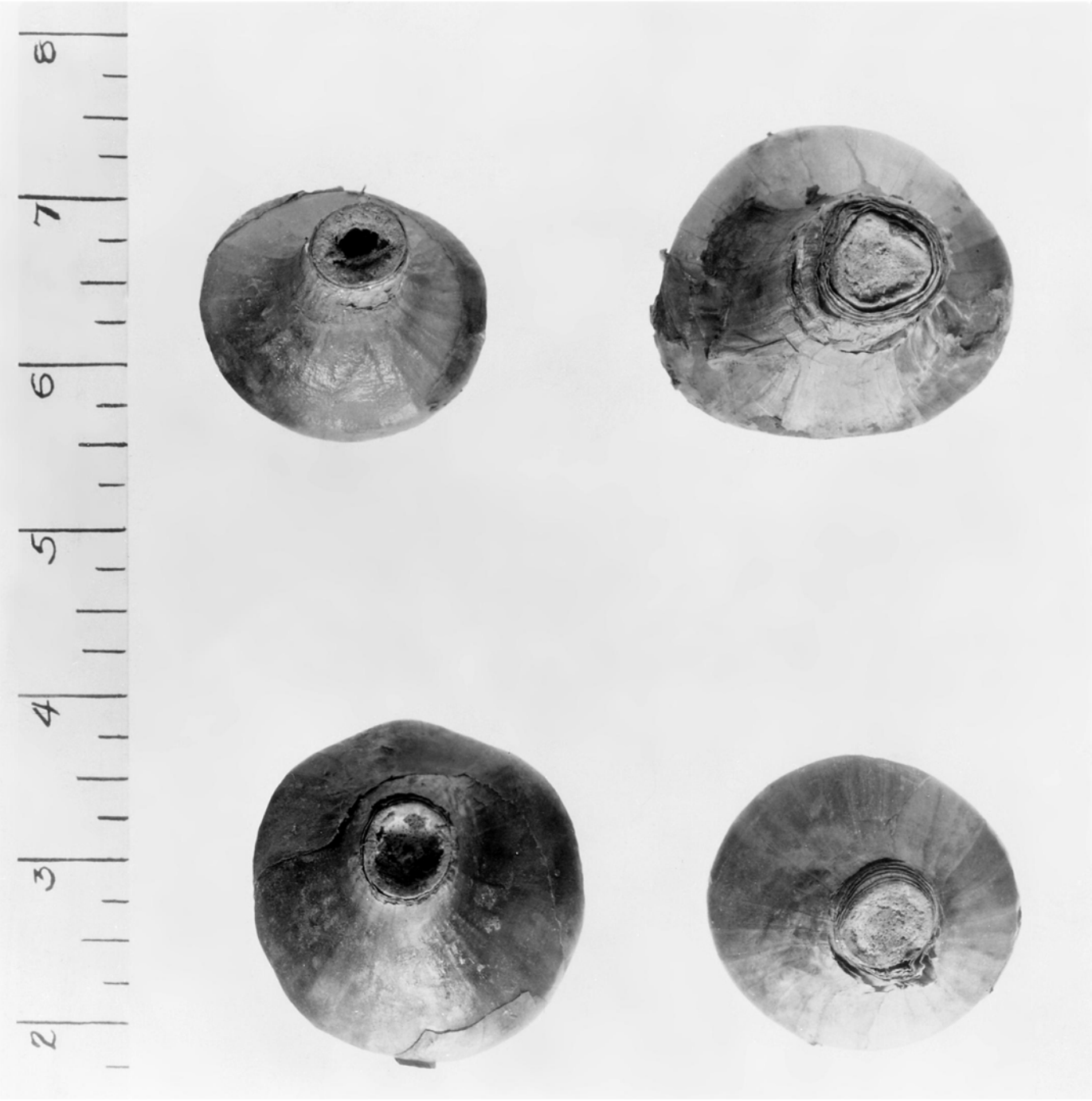
ONS-IDENT-2
MAY 1992

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

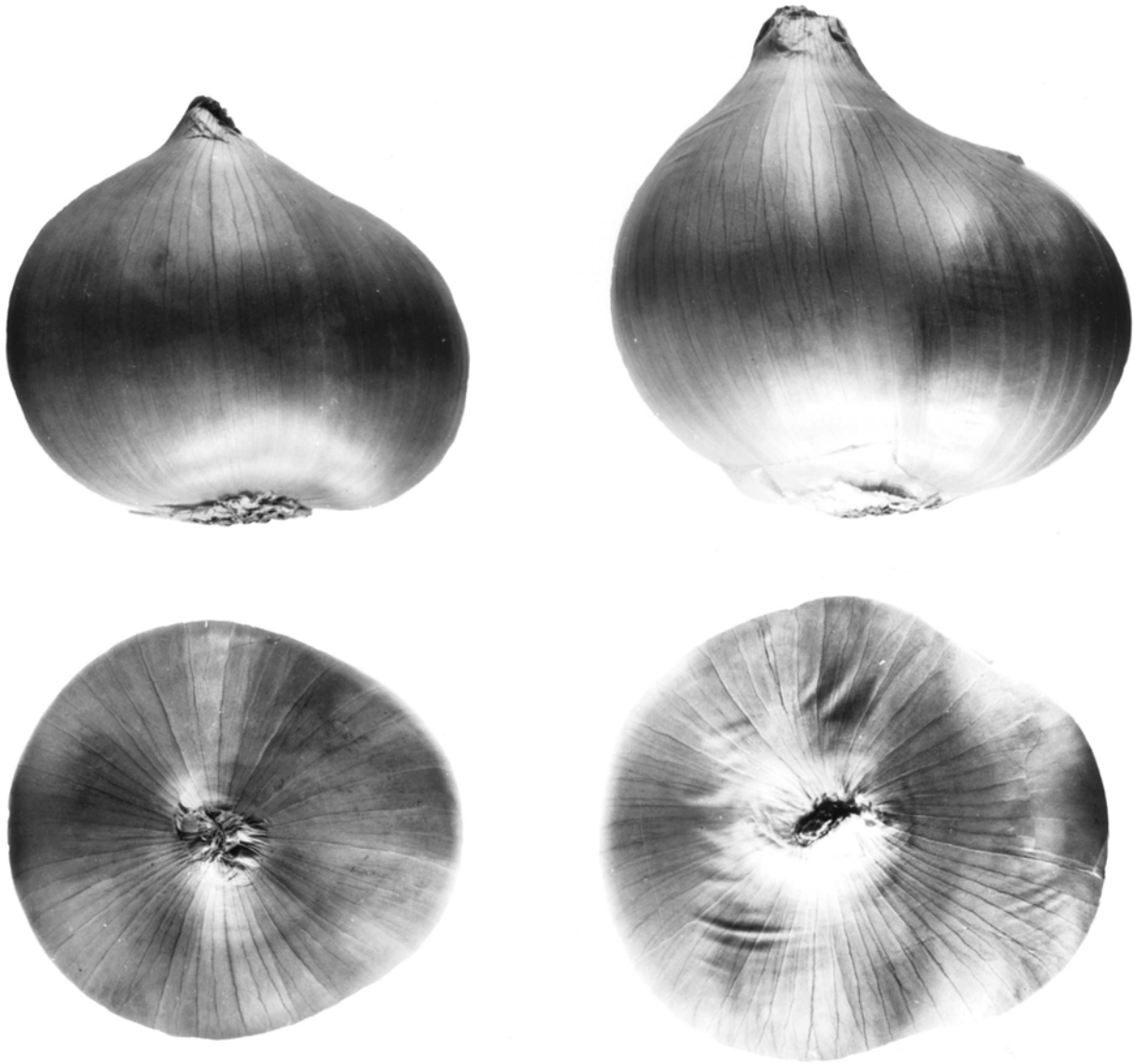
Onions, Photo No. 4
April 1990 (Previously No. 4, no date)

ONIONS OF THESE SHAPES SHALL BE ALLOWED IN U.S. NO. 1 GRADE FOR NORTHERN GROWN ONIONS.

Onions, Photo No. 5
April 1990 (Previously No. 5, no date)

A

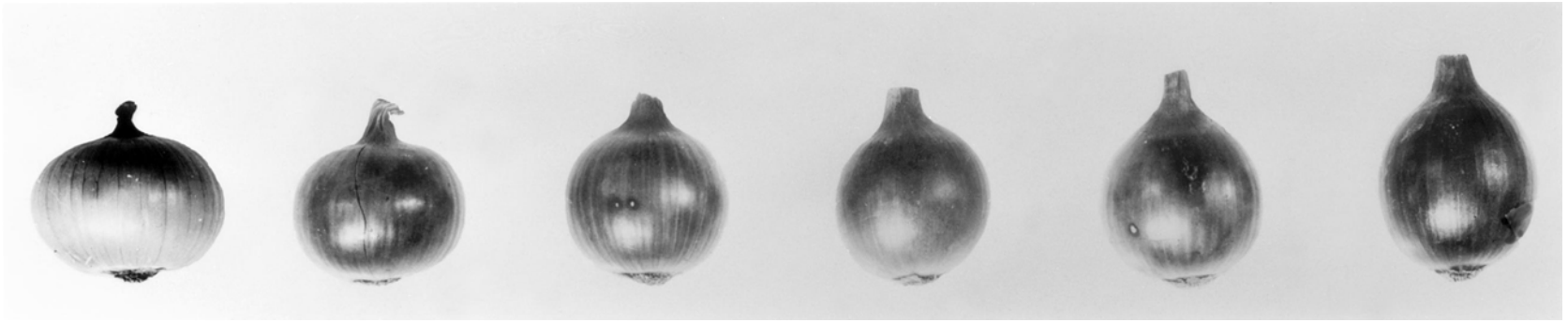
B



A. U.S. NO. 1 FOR SHAPE
B. U.S. COMMERCIAL FOR SHAPE

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

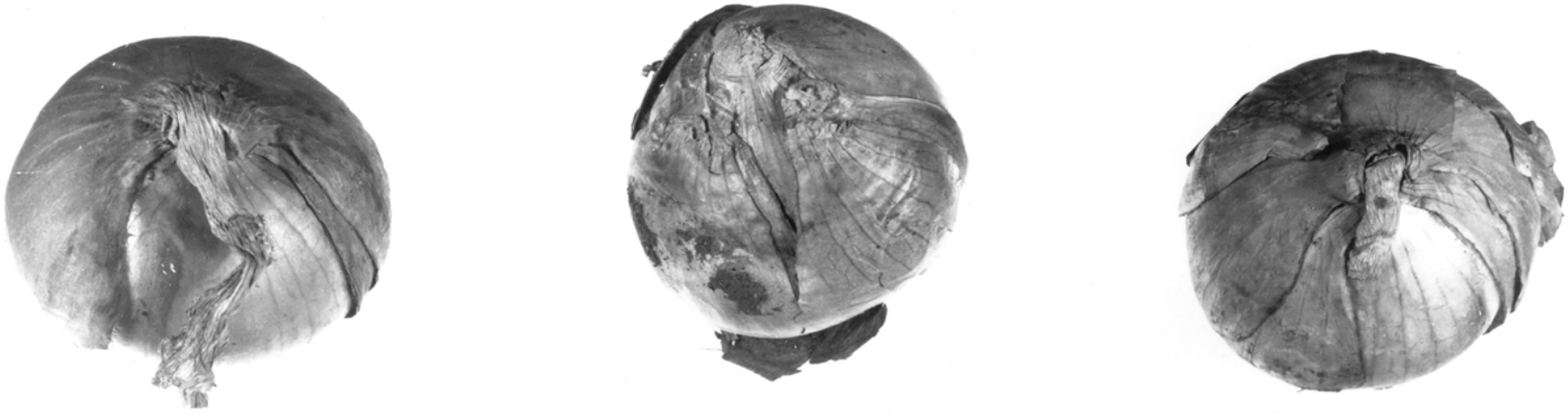
SHAPE ON ONIONS



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)

NORTHERN GROWN ONIONS – CRACKING OF SCALES



Cracking of outer, thin, papery scales not considered damaged unless present to extent as to materially affect appearance of lot.

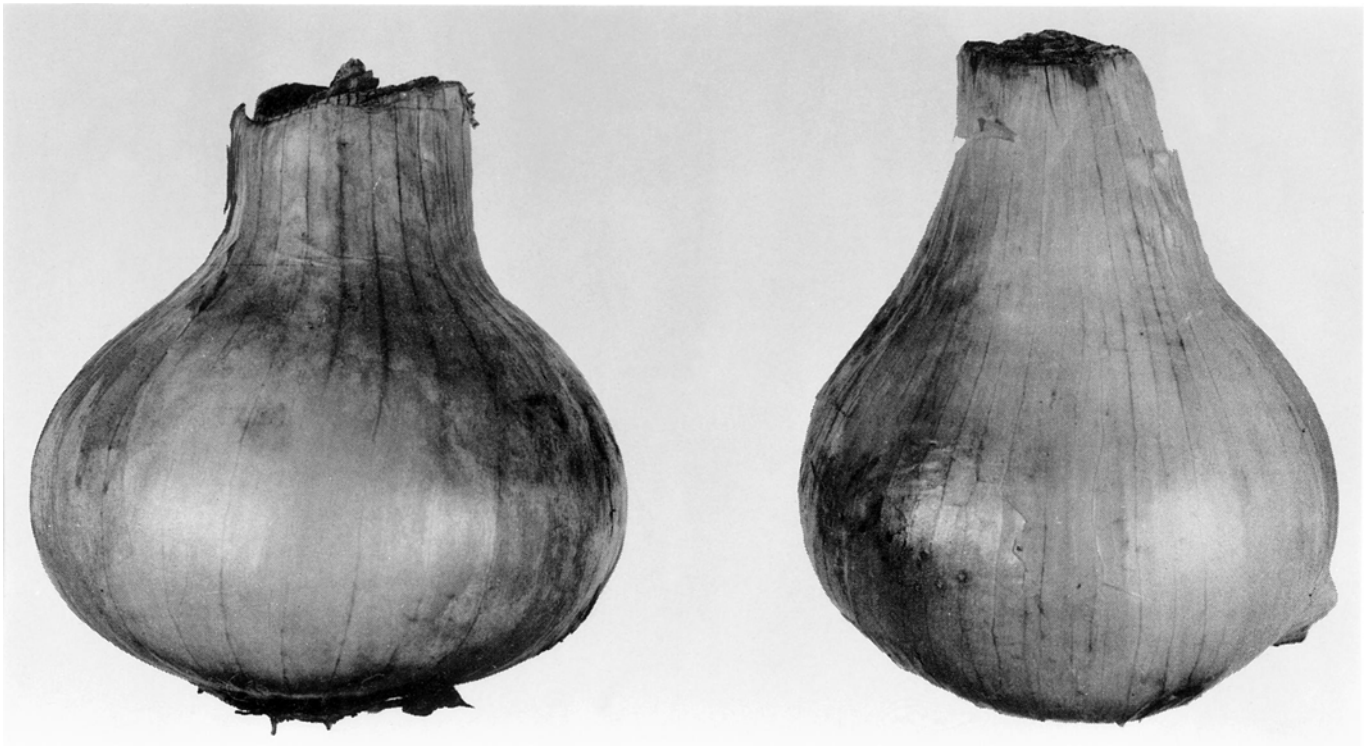
One or more cracked, fleshy scales considered damaged.

Onions, Photo No. 14
April 1990 (Previously No. 14, no date)

NORTHERN GROWN ONIONS

Illustrating “Bottlenecks” or “Thick-necked” Onions

Not “Bottlenecks” – U.S. No. 1



“Bottlenecks” – Not U.S. No. 1 but meet requirements of U.S. No. 2

Onions, Photo No. 15
April 1990 (Previously No. 15, no date)

ONIONS SLIDE 1 – LOOSE SKIN

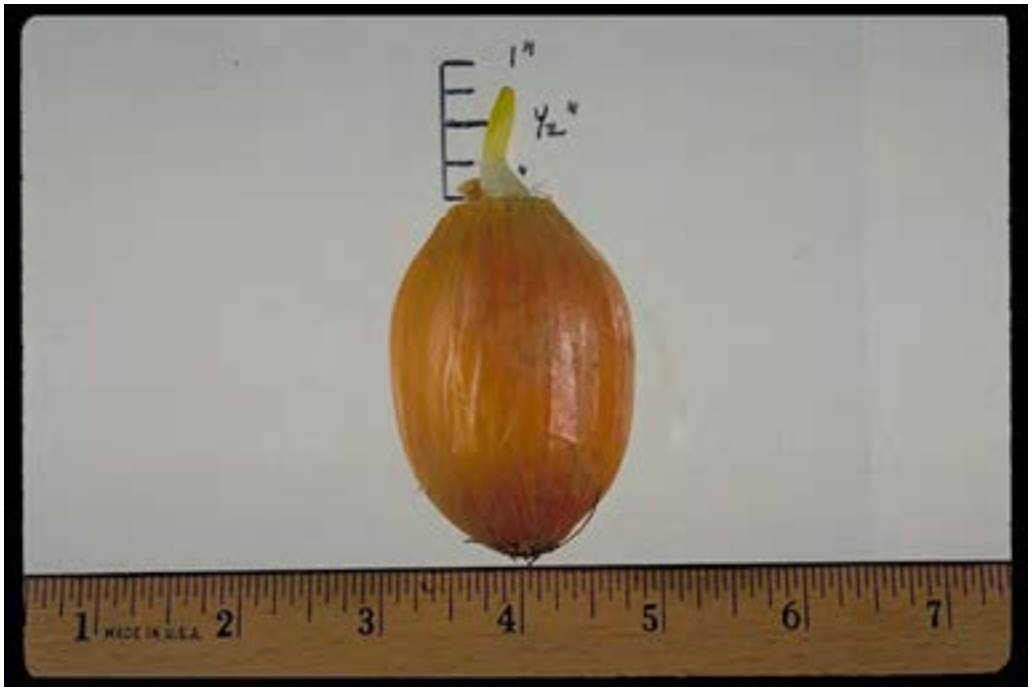
ONIONS SLIDE 2 – EXCESSIVE TOPS

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

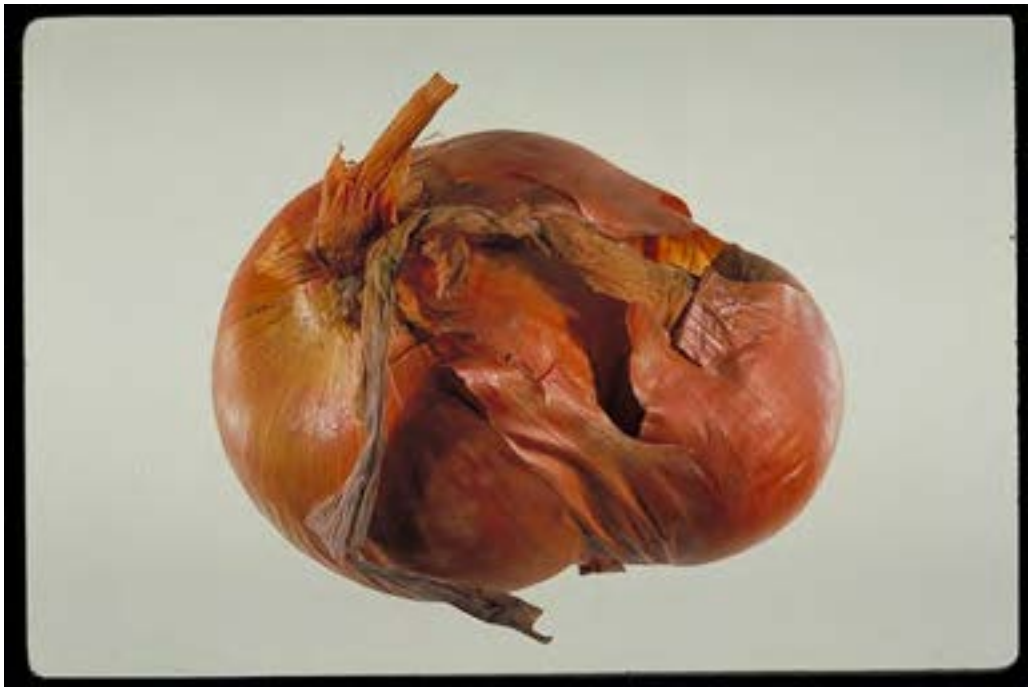
ONIONS SLIDE 11 – NEW ROOT GROWTH

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

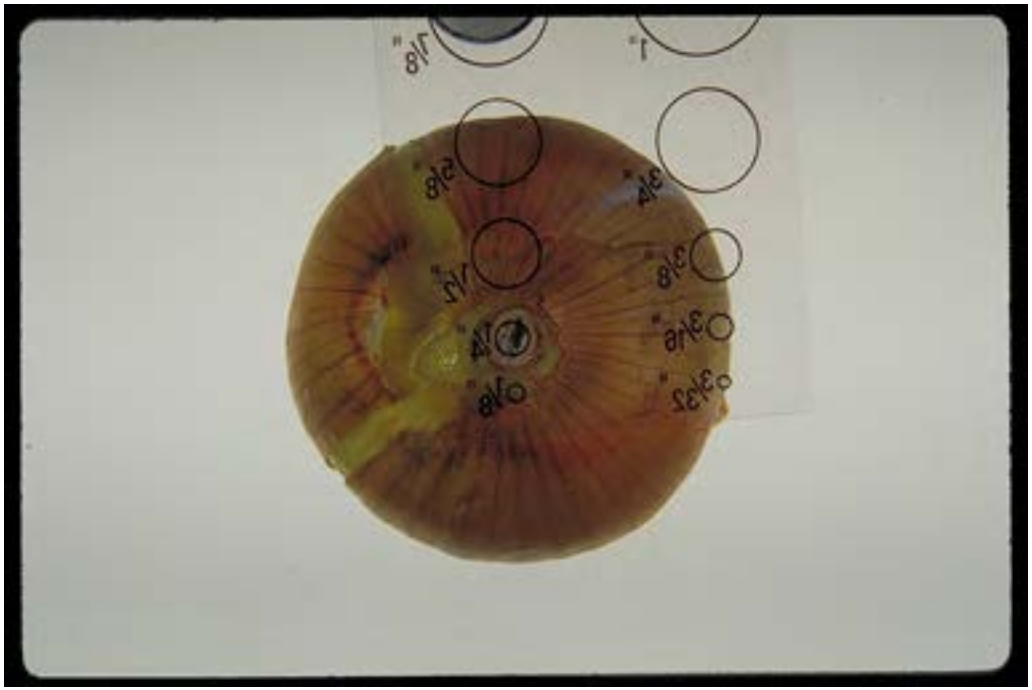
ONIONS SLIDE 20 -- SUNSCALD

ONIONS SLIDE 21 – BLACK SURFACE MOLD

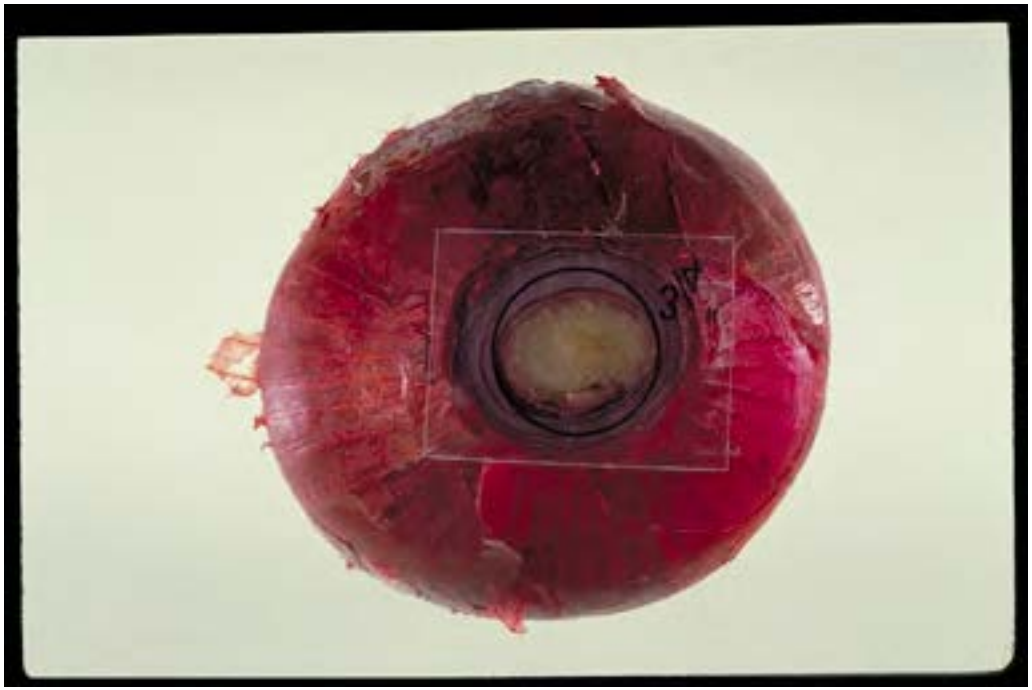
ONIONS SLIDE 22 – BLACK MOLD BETWEEN SCALES

ONIONS SLIDE 23 -- DIRT

ONIONS SLIDE 24 -- SEEDSTEM



ONIONS SLIDE 25 -- SEEDSTEM

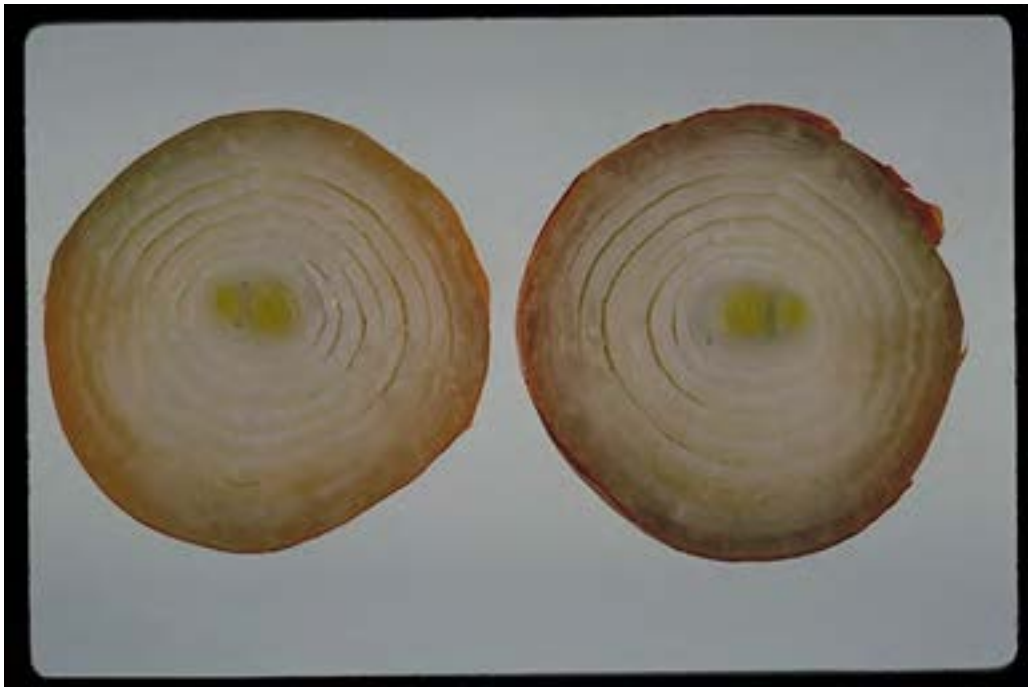


ONIONS SLIDE 26 -- CUT

ONIONS SLIDE 27 -- CUT

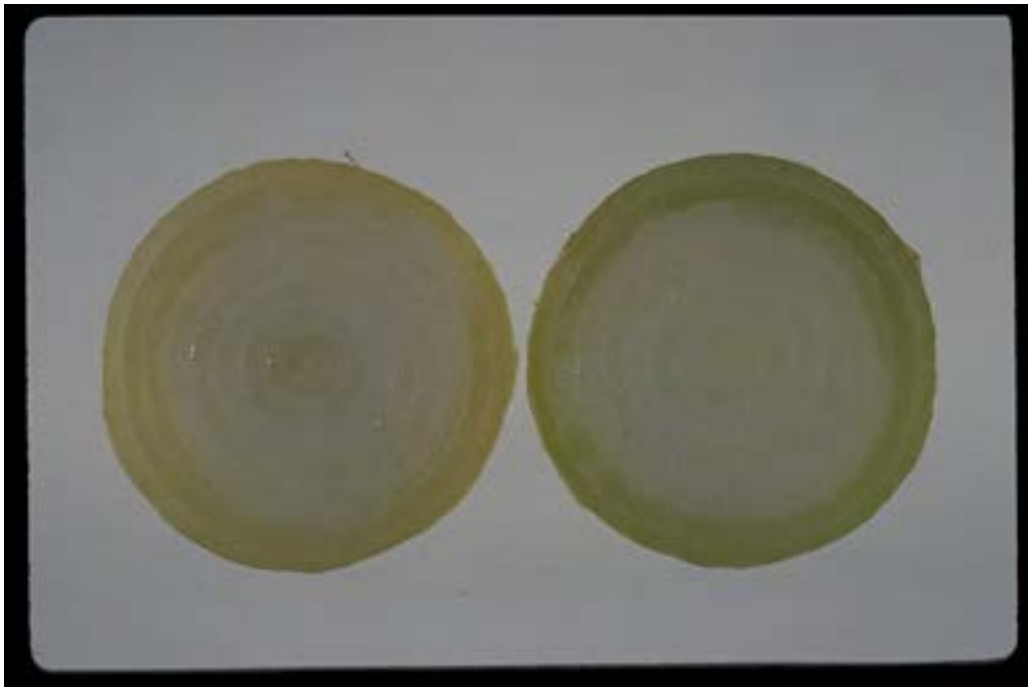
ONIONS SLIDE 28 -- CUT

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