

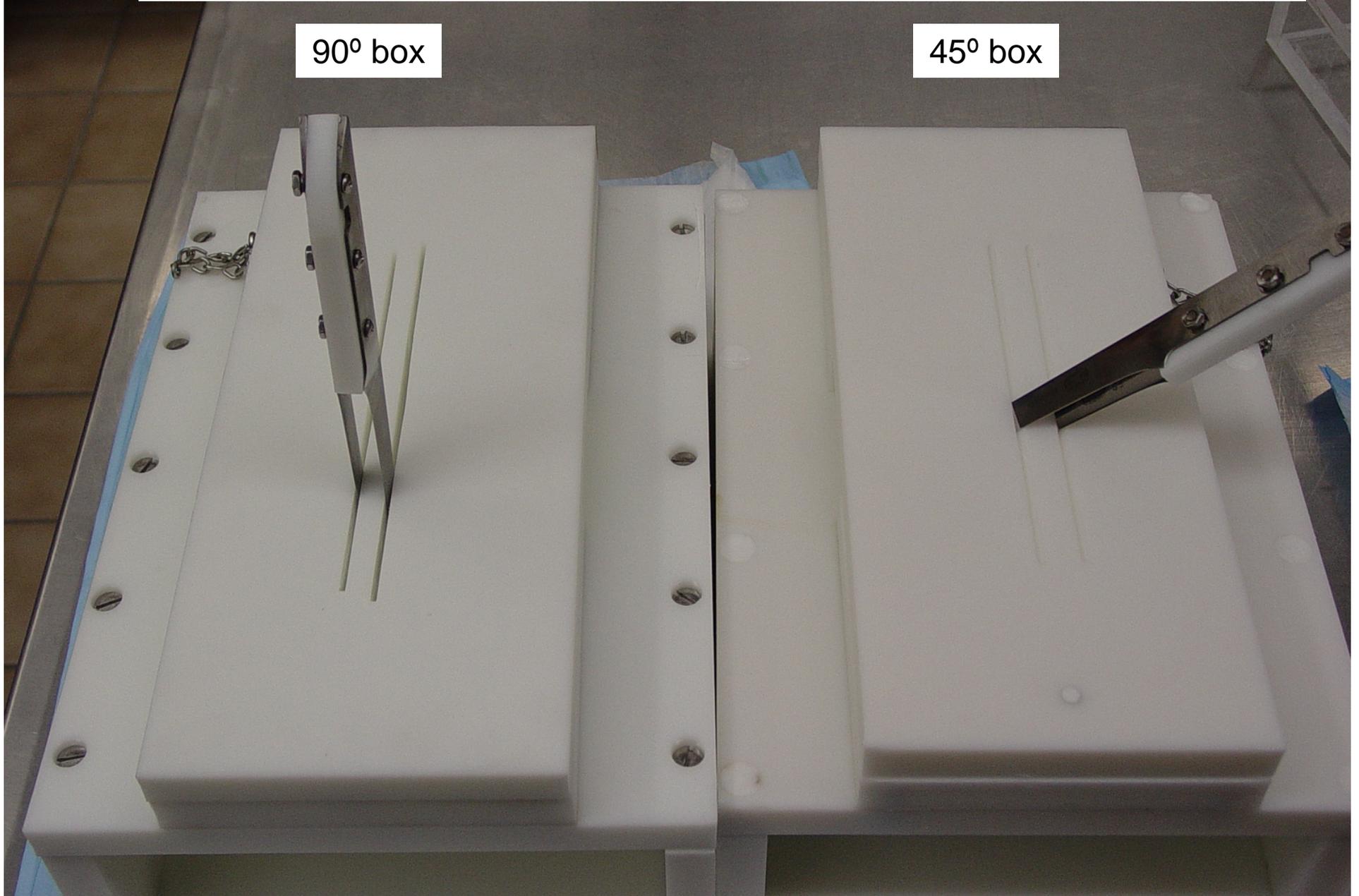
# USMARC Slice Shear Force Procedure for Beef Semitendinosus (ST)

- This project was funded, in part, by The Beef Checkoff.

SSF sampling of ST is conducted with the 90° box

90° box

45° box



On the following slides, a picture of a frozen steak is shown rather than a cooked steak. This was done in order to more clearly show steak orientation. But, slice shear force measurement is conducted on cooked steaks. Steaks are sampled and slice shear force is measured immediately after completion of cooking.

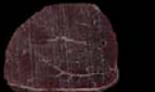
# Semitendinosus (ST) - Right

Proximal



Distal

Steak 1



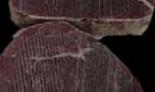
Steak 2



Steak 3



Steak 4



Steak 5



Steak 6



Steak 7



Steak 8



Steak 9



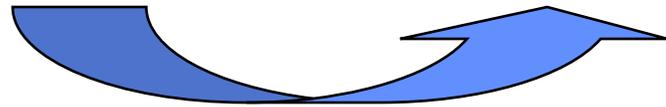
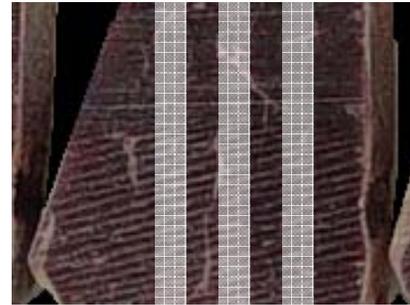
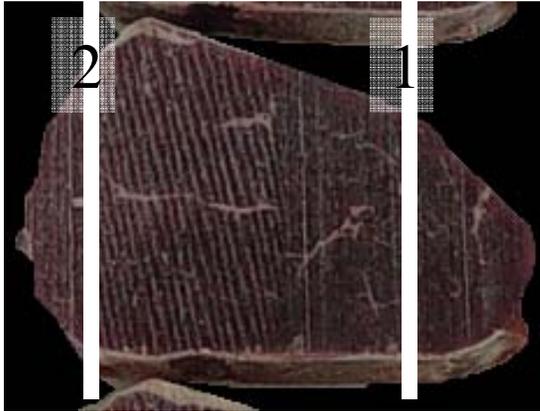
Steak 10



Steak 11



ST



Make cuts 1 and 2 and rotate the piece **counter clockwise** and place in the 90 degree box. Obtain the 1<sup>st</sup> slice near the top (now on the left) of the section. Obtain the 2<sup>nd</sup> slice in the center. Obtain the 3<sup>rd</sup> slice near the bottom (now on the right). Space the slices approximately equally.

# Sample data sheet for ST SSF

Fresh\_SSF\_Data

| Date       | Yellow tag ID | Muscle | Location   | Slice box | SSF | Notes | DPM |
|------------|---------------|--------|------------|-----------|-----|-------|-----|
| 07/01/2009 | 2001          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2001          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2001          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2002          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2002          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2002          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2003          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2003          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2003          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2004          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2004          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2004          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2005          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2005          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2005          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2006          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2006          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2006          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2007          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2007          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2007          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2008          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2008          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2008          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2009          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2009          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2009          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |
| 07/01/2009 | 2010          | 08_ST  | 081_Top    | 90°       |     |       | 15  |
| 07/01/2009 | 2010          | 08_ST  | 082_Center | 90°       |     |       | 15  |
| 07/01/2009 | 2010          | 08_ST  | 083_Bottom | 90°       |     |       | 15  |