

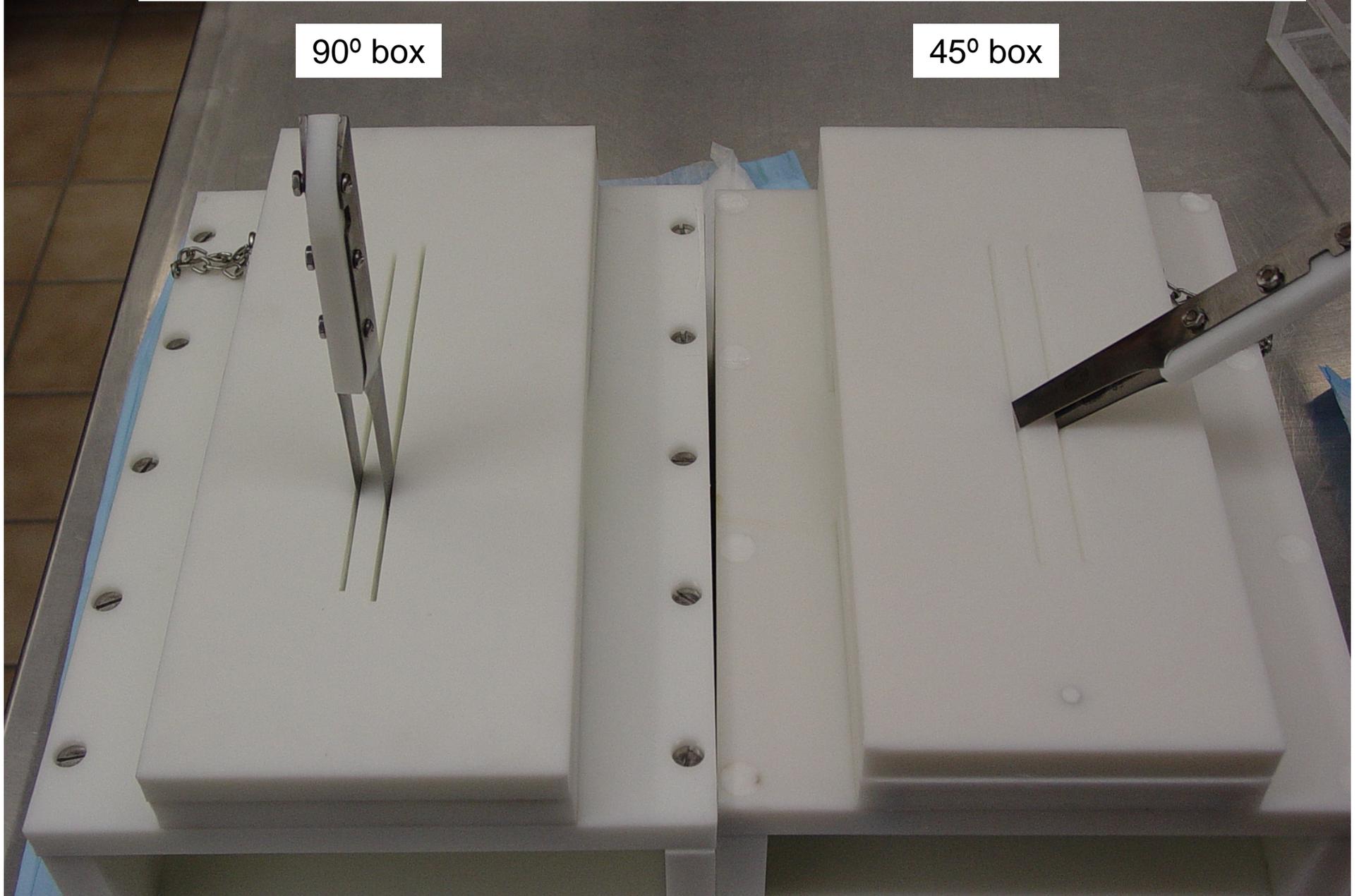
USMARC Slice Shear Force Procedure for Beef Gluteus medius (GM)

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

SSF sampling of GM is conducted with the 45° box

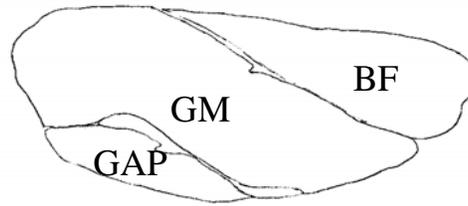
90° box

45° box



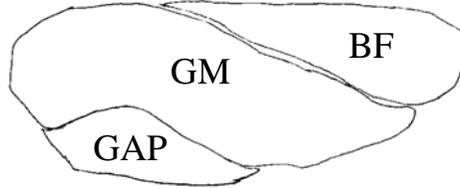
On the following slides, a picture of a frozen steak is shown rather than a cooked steak. This was done in order to more clearly show steak orientation. But, slice shear force measurement is conducted on cooked steaks. Steaks are sampled and slice shear force is measured immediately after completion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

STEAK #1

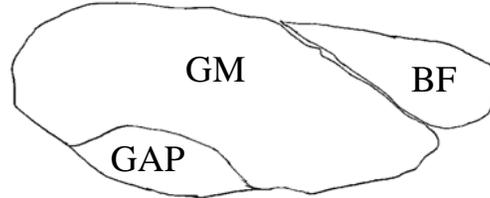


POSTERIOR
END

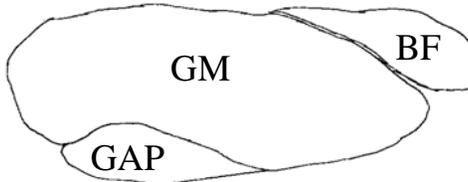
STEAK #2



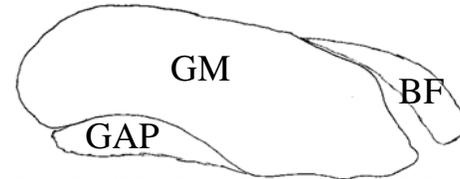
STEAK #3



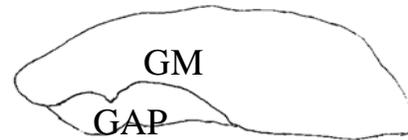
STEAK #4



STEAK #5



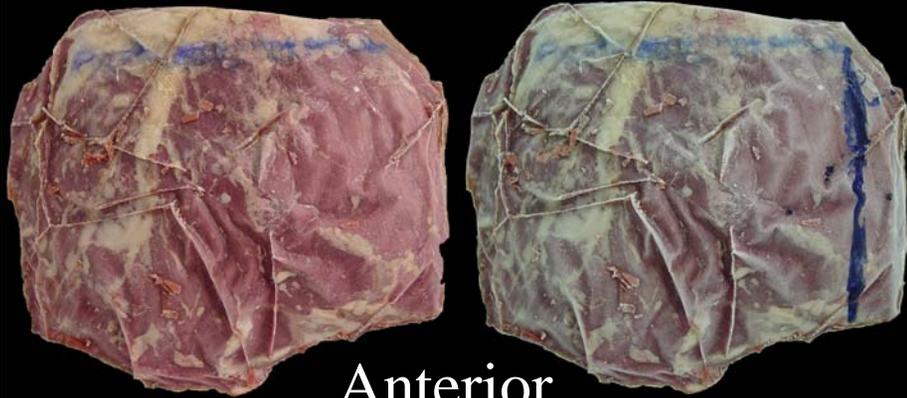
STEAK #6



ANTERIOR
END

Gluteus medius (GM) - Left

Posterior



Anterior

Posterior

Medial



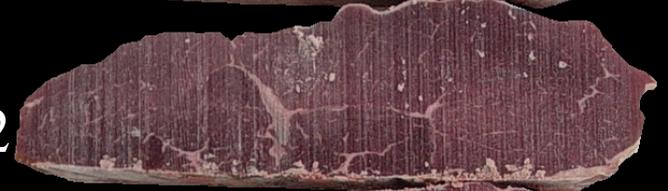
Lateral

Anterior

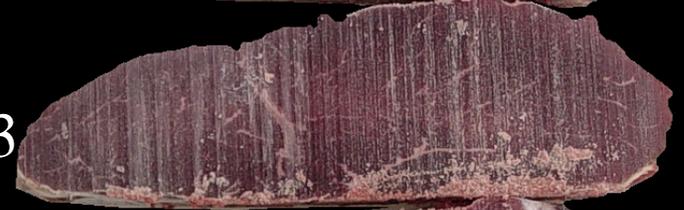
Steak 1



Steak 2



Steak 3



Steak 4



Steak 5



Steak 6



Gluteus medius (GM) - Right

Posterior



Anterior

Posterior



Lateral

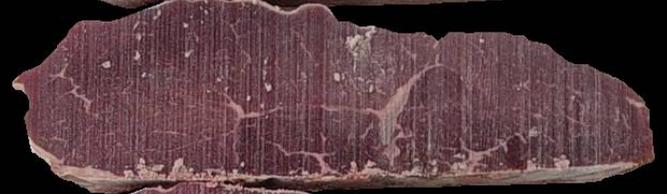
Medial

Anterior

Steak 1



Steak 2



Steak 3



Steak 4



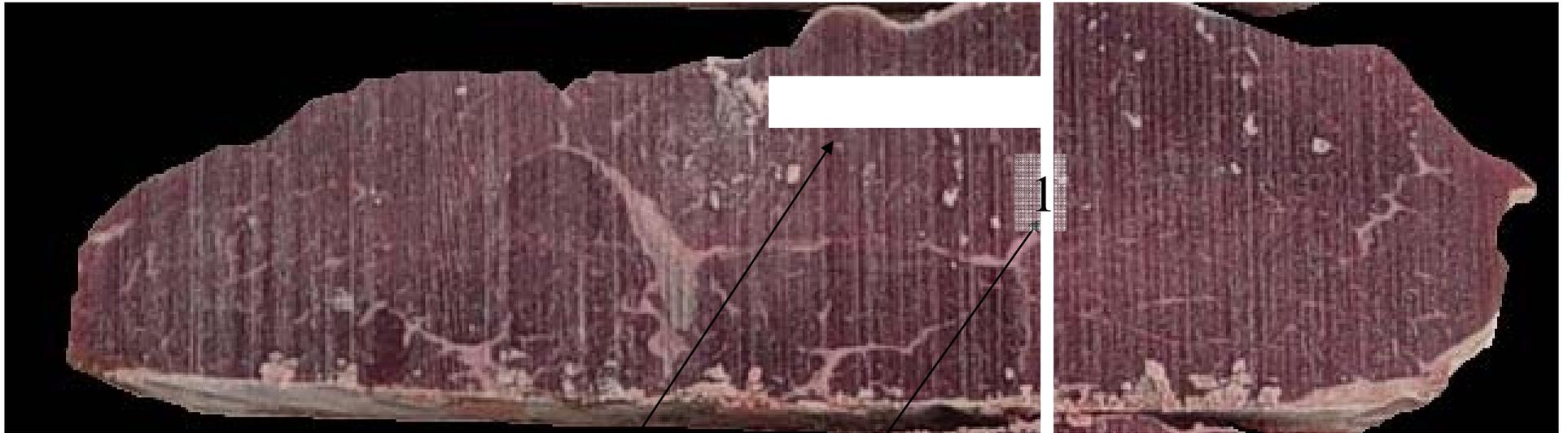
Steak 5



Steak 6



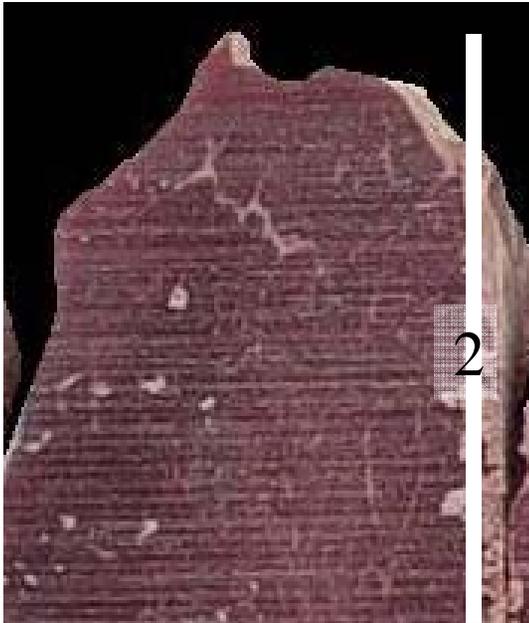
GM Step 1



1st cut.

Orient the steak with the blue mark at the top right. The cut is made to leave a 5-cm-long section at the top center between the cut and the heavy connective tissue strip.

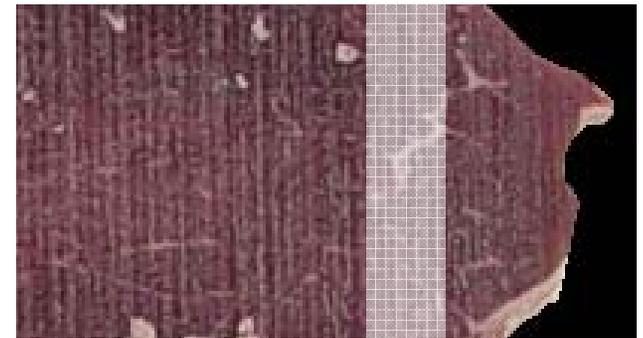
GM Step 2 LEFT



Rotate the right hand piece **counter clockwise**. Make the 2nd cut to square off the bottom of the steak (now on the right).

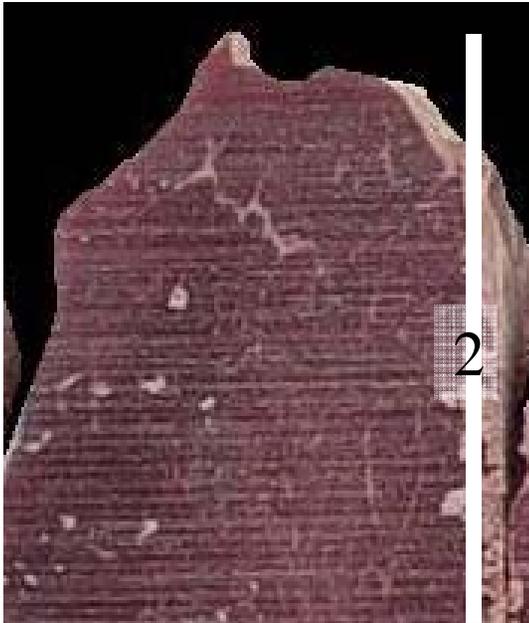


Place the piece in the sample sizer box and make the 3rd cut.



Rotate the piece **clockwise** and place the piece in the 45° box. Take the slice as close as possible to the right end of the steak.

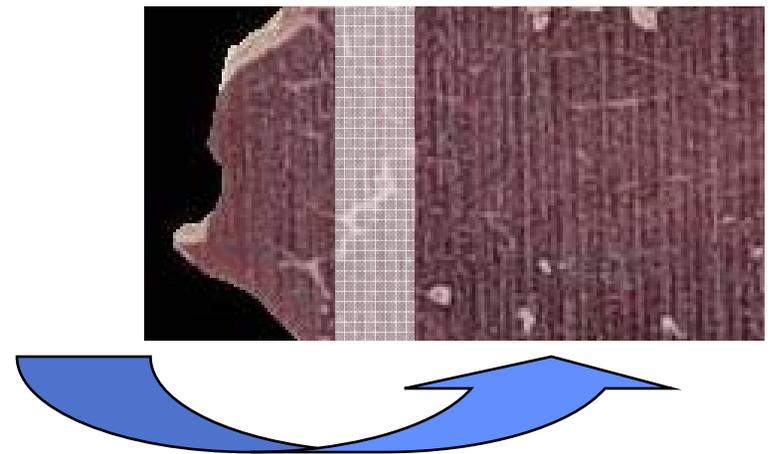
GM Step 2 RIGHT



Rotate the right hand piece **counter clockwise**. Make the 2nd cut to square off the bottom of the steak (now on the right).

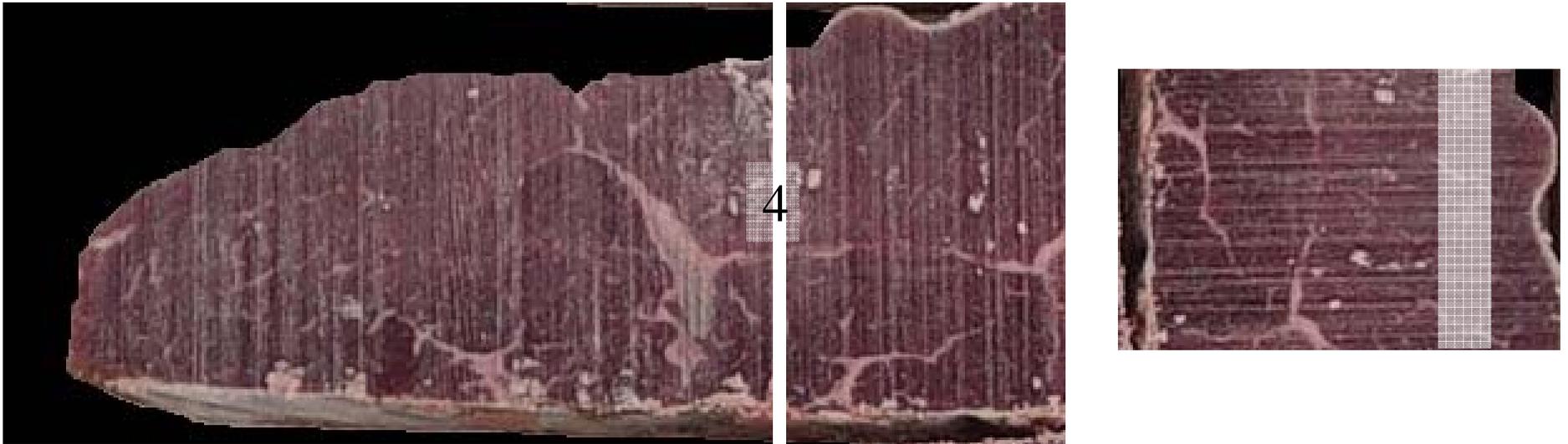


Place the piece in the sample sizer box and make the 3rd cut.



Rotate the piece **counter clockwise** and place the piece in the 45° box. Take the slice as close as possible to the right end of the steak (now on the left).

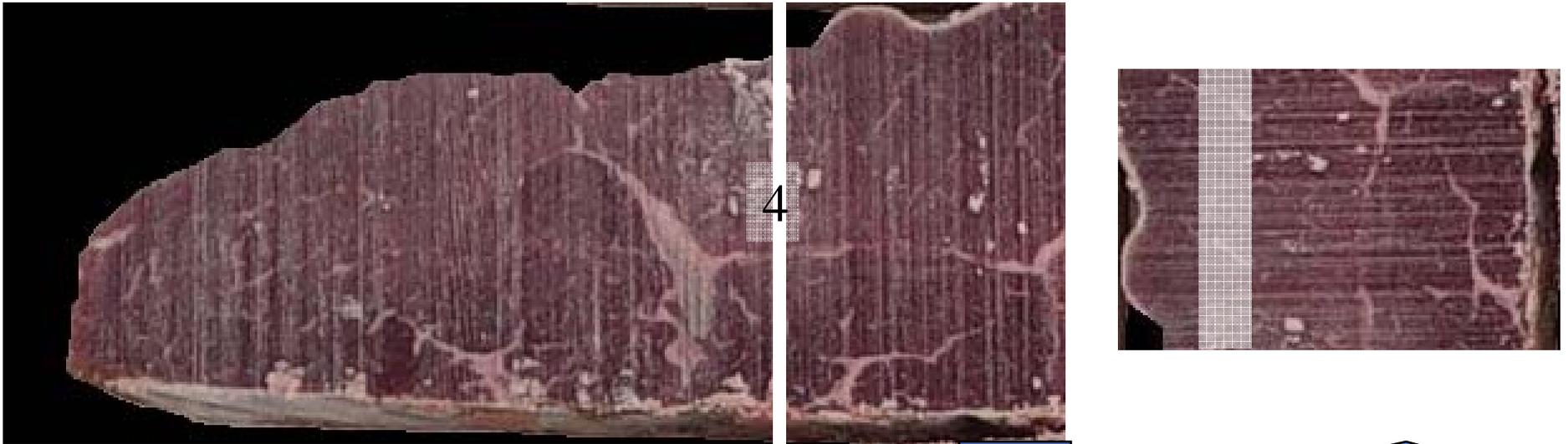
GM Step 3 LEFT



Place the piece in the sample sizer box and make the 4th cut.

Rotate the piece **clockwise** and place the piece in the 45° box. Take the slice as close as possible to the top (now on the right) of the steak.

GM Step 3 RIGHT



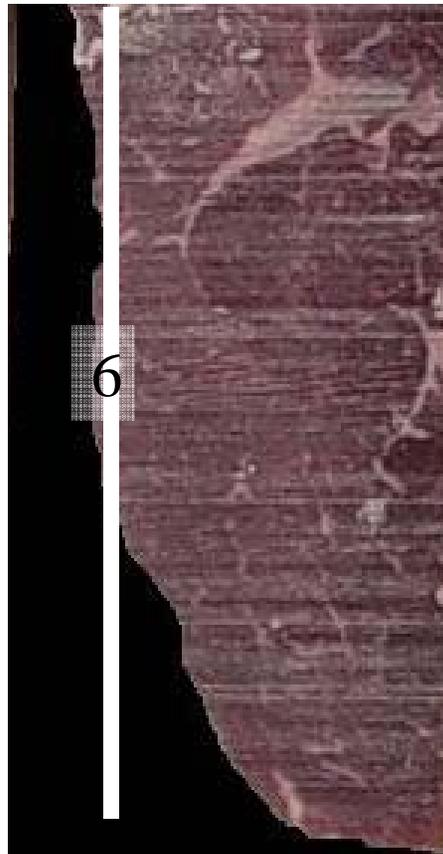
Place the piece in the sample sizer box and make the 4th cut.

Rotate the piece **counter clockwise** and place the piece in the 45° box. Take the slice as close as possible to the top (now on the left) of the steak.

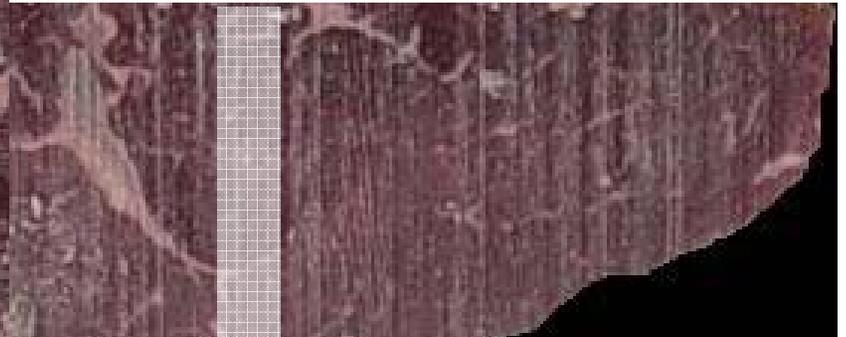
GM Step 4 LEFT



Rotate the left hand piece **counter clockwise**. Make the 5th cut to square off the bottom of the steak (now on the right).



Place the piece in the sample sizer box and make the 6th cut.

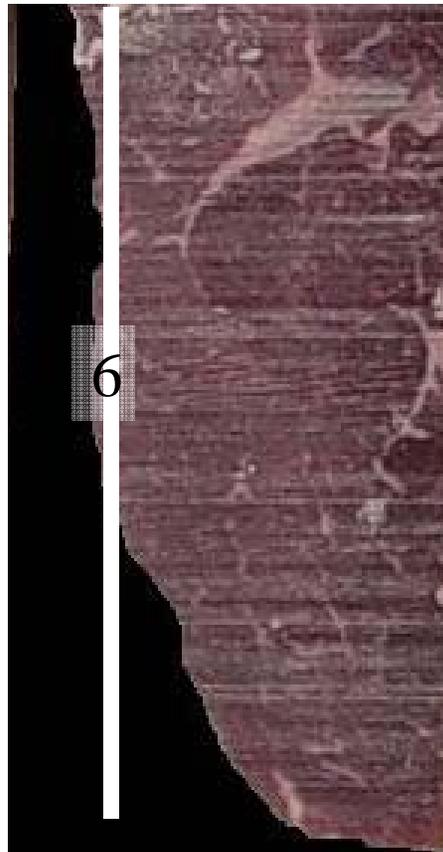


Rotate the piece **counter clockwise** and place the piece in the 45° box. Take the slice just to the right of the heavy connective tissue strip.

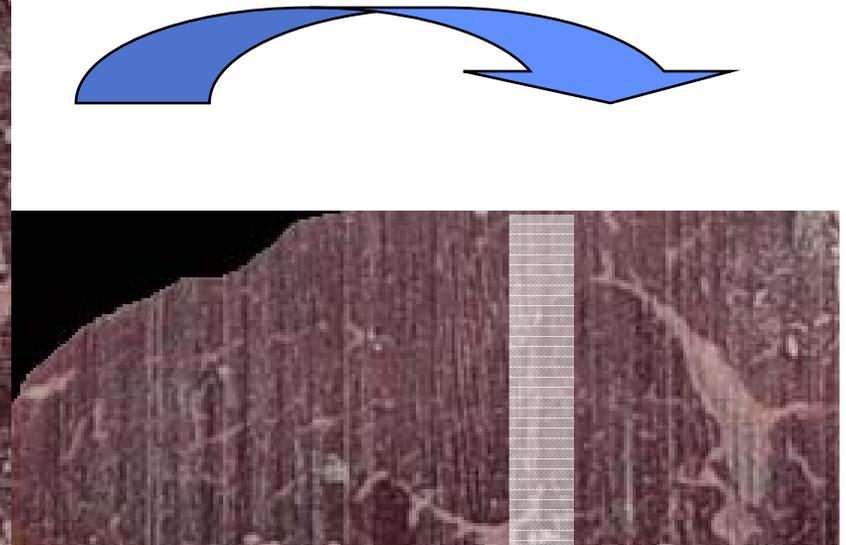
GM Step 4 RIGHT



Rotate the left hand piece **counter clockwise**. Make the 5th cut to square off the bottom of the steak (now on the right).

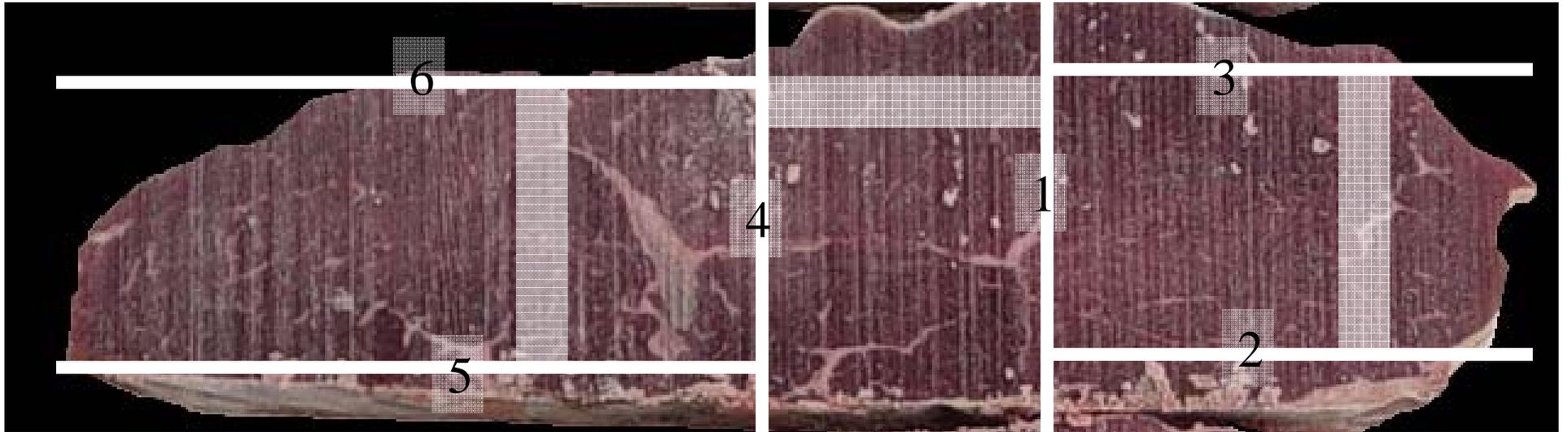


Place the piece in the sample sizer box and make the 6th cut.



Rotate the piece **clockwise** and place the piece in the 45° box. Take the slice just to the left of the heavy connective tissue strip.

GM Overview



Sample data sheet for GM SSF

Fresh_SSF_Data

Date	Yellow tag ID	Muscle	Location	Slice box	SSF	Notes	DPM
07/01/2009	2001	03 GM	031 Lateral end	45°			15
07/01/2009	2001	03 GM	032 Top center	45°			15
07/01/2009	2001	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2002	03 GM	031 Lateral end	45°			15
07/01/2009	2002	03 GM	032 Top center	45°			15
07/01/2009	2002	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2003	03 GM	031 Lateral end	45°			15
07/01/2009	2003	03 GM	032 Top center	45°			15
07/01/2009	2003	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2004	03 GM	031 Lateral end	45°			15
07/01/2009	2004	03 GM	032 Top center	45°			15
07/01/2009	2004	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2005	03 GM	031 Lateral end	45°			15
07/01/2009	2005	03 GM	032 Top center	45°			15
07/01/2009	2005	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2006	03 GM	031 Lateral end	45°			15
07/01/2009	2006	03 GM	032 Top center	45°			15
07/01/2009	2006	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2007	03 GM	031 Lateral end	45°			15
07/01/2009	2007	03 GM	032 Top center	45°			15
07/01/2009	2007	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2008	03 GM	031 Lateral end	45°			15
07/01/2009	2008	03 GM	032 Top center	45°			15
07/01/2009	2008	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2009	03 GM	031 Lateral end	45°			15
07/01/2009	2009	03 GM	032 Top center	45°			15
07/01/2009	2009	03 GM	033 Medial side of CT strip	45°			15
07/01/2009	2010	03 GM	031 Lateral end	45°			15
07/01/2009	2010	03 GM	032 Top center	45°			15
07/01/2009	2010	03 GM	033 Medial side of CT strip	45°			15