



Texas Tech University

Slice Shear Force

Equipment: Special cutting board (x2); special double blade; and regular knife

1. Turn computer on and United on
Username: Keladams
Password: cows9640
2. Set George Forman's to 425°F.
3. Attach blade to United if not already done. The blade must line up with the plate but cannot touch the sides.
4. Use the knobs on the side of the plates to tighten the plates.
5. Lubricate plates/blade with a water bottle.
6. Open program (Dinosaur symbol).
7. Using the F functions and letters at the bottom of the screen, the settings need to be as follows:
 - a. F1= area compression (off)
 - b. F2= auto=return
 - c. F3= force units (kg)
 - d. F4=linear units (mm)
 - e. F5=area compression (off)
 - f. F6=cycling = N=1 H=2; L=85
 - g. F7= test sp= 500
 - h. F8=ret sp= 500
 - i. F9= preload= off
 - j. F10= setup scales; CAP =226.8
8. Use T to test and Z to zero
 - a. Continue to adjust machine (water bottle) until drag is less than .05; want drag to be about .03, .04, and .05.
9. Place plastic cup under blade to catch samples.
10. Cover keyboard with plastic wrap.
11. Record maximum drag each shear at load and peak intersection.

12. Make sure to periodically clean blade because drag will increase
 - a. clean roughly every 20 shears.

Cutting Steaks

1. ID lateral end on strips (opposite end of multifidous muscle).
2. Square up muscle.
3. Cut last 5 cm off lateral end (Ignore top hash marks).
4. ID direction of muscle fibers.
5. Place in box parallel to fibers; want to cut with fibers.
6. Use sawing motion to cut.
7. Save remaining slices for WBS.
8. Take shear slice from in-between knife blades over and shear, placing flat. (T = test, Z = 0).
9. When done alt + q =exit program.

Cooking Steaks

1. Thaw steaks in sausage room at 2-5°C. Steaks must be set out the day before as thawing takes 18 to 24hr. Thawing more rapidly at room temperature results in increased purge.
2. Take the internal temperature of each steak in geometric center of steak and record. Temps should be around 2-5°C. Don't allow steaks to set out and get warmer than 5°C as this will result in a higher degree of doneness.
3. Set a clean plate on the scale and zero the scale in grams.
4. Weigh each steak with its identification tag in grams and record.
5. Place each steak on the belt grill with its tag near it to maintain identification.
6. Using a new plate, again zero the scale in grams.
7. When steaks are finished cooking, weigh the steak and its tag and record.
8. Take the internal temperature of each steak in the geometric center and record. Temps should be 68-71°C.

9. Place all cooked steaks on a white tray and cover the tray with saran wrap. Store trays in cooler at 2-5°C for 24 hours until time to shear.

Magi-Grill Operation Instructions

1. Turn the main power switch "ON".
2. Turn the key switch to the menu position (horizontal) – Display should read [MENU?A].
3. Press the letter of the desired menu (F is the most common for cooking 1" cuts to a medium degree of doneness).
4. Press ENTER to choose the desired menu.
5. Press and hold the LIFT ENABLE button until the belts are fully lowered – **BE SURE TO HOLD THE BUTTON DOWN UNTIL THE DISPLAY CHANGES FROM [SET Ht] to [TIME 15:00] --- If the grill height does not change, the emergency knob may be engaged. Simply pull the knob out to undo the emergency hold.**
6. The grill will begin pre-heating for 15 minutes.

After Cooking Clean-Up

After each cooking session the belt grill should be cleaned to prevent grease build up and aid in maintaining sanitary conditions.

1. After all steaks have been cooked, push the [CANCEL] button and the grill will count down for one cooking cycle.
2. Turn the power switch "OFF".
3. Remove the grease catching pans and clean thoroughly with soap.
4. Wipe down the area below the grease catching pans.
5. Wipe the belts clean with a wet cloth in bleach water (no soap) by turning the belts by hand.
6. **Empty the grease pail from the far left compartment in the trash can and rinse clean.**
7. Dry all pieces of equipment and re-assemble the grill.