**Healthful meals** help maintain energy and focus during work. Busy seasons for farmers can often be unpredictable. Try planning your meals in advance to make things easier, save on time and give you one less thing to think about while you’re in the field. This handout provides nutrition and food safety tips, meal-planning ideas and several recipes.

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**Nutrition Basics**
Planning a nutritious meal can be challenging, especially during busy seasons when most meals aren’t being eaten at the dinner table. Here are some tips to make planning a healthy meal simple.

**Protein**
Animal sources: dairy, meat, poultry, fish and seafood.
Plant sources: beans, lentils, nuts, tofu and seeds.

**Fat**
Animal sources: dairy, meat, poultry, fish and seafood.

**Fiber**
Can be found in all plant foods. Vegetables, fruits, nuts, seeds, beans, lentils and whole-grain products provide fiber. Combining items such as protein, fat and fiber will help keep you full for longer in between meals.

**Sodium**
Choose recipes without a lot of sodium of the average-sized palm of the hand is 3 to 4 ounces of meat.

**Potatoes:** 5 ounces or an average-sized medium whole potato. 
Average-sized fist = 1 medium-sized whole potato.

**Pasta:** 2-3 ounces. 
Average-sized handful = ½ cup of pasta.

**Vegetables:** 4 ounces or ½ cup. 
Average-sized fist = 1 cup sliced/diced veggie; 2 fists = 2 cups leafy greens.

**Fruit:** 4 ounces or ½ cup; 1 whole fruit. 
Average sized fist = 1 cup sliced/diced fruit.

**Beans:** 2-3 ounces.

**Nut/Seeds:** 1 ounce or ½ cup. 
Average sized thumb = 1 tablespoon of nut oil or butter.

**Rice:** ½ cup. 
Average-sized handful = ½ cup of rice.

**Pudding,** Jell-O, mousse.
1 medium-sized cookie, brownie, bar, cake or ½ cup pudding, Jell-O, mousse.

**How to Make a Homemade Handwashing Station**
- Carry a water bottle with clean water in it, soap and clean paper towels.
- Use moist towlettes to clean your hands of any dirt or grime and follow with an alcohol-based hand sanitizer (60% alcohol minimum).
- Place a garbage can or bag nearby for paper towel disposal.

**Transporting Food**
When transporting food, the key is to keep hot food hot and cold food cold. Here are some tips to keep hot food hot and cold food cold at or below 40 degrees Fahrenheit and cold foods at or below 40 degrees Fahrenheit.

**Hot food**
After food is thoroughly cooked, remove from heat and pack into coolers or insulated containers with clean, heavy towels. Hot foods can be held for two hours without a heat source, and then they must be either served immediately or discarded.

- Preheat a thermos by filling with boiling water, emptying and then adding the hot food.

**Cold food**
Cold foods must be held at or below 40 degrees Fahrenheit. Once packed and ready, place cold foods into coolers or insulated containers with ice or ice packs. Cold food can be held for two hours at room temperature.

- Use thermos containers for soups/chilis on the go.
- Use muffin tins or mini loaf pans for single-service servings.

**Buffet service:** Items are set on a buffet line. Everyone serves themselves.

**Family style:** Meal items are placed in bowls or pans on a table. Everyone serves themselves.

**Stay Hydrated**
Drinking water is easy to forget, but staying hydrated will keep you healthy, focused and awake. Bring water jugs/bottles or healthy beverage options along with meals. Make sure to avoid overdosing it on coffee or caffeine and alternate with water. If plain water isn’t appealing, you can add fruit, a splash of juice, or powdered/liquid water flavorings.

**Add Variety for a Nutritious Meal**
- Include at least three different food groups at each meal (fruits, vegetables, grains, protein and dairy).
- Try to vary the foods you eat during the week.
- Enjoy your colors! Enjoy a variety of fruits and vegetables.

**Allergens/Food Sensitivities/Dietary Restrictions**
Check in advance to see if any of your crew has any dietary limitations, restrictions, food allergies or sensitivities. Reactions to allergens can vary from mild to severe and in some cases can be life threatening. Precautions may need to be taken during preparation, transport and service. NDSU Extension has several food allergy publications to help you navigate food allergies.

**Planning a Nutritious Meal can be challenging, especially during busy seasons when most meals aren’t being eaten at the dinner table. Here are some tips to make planning a healthy meal simple.**

**How much food should I prepare?**
These are estimated portion sizes per person. Make adjustments to portion sizes as necessary for your crew’s needs.

**Meat/protein:** 4 to 5 ounces is a standard serving size for beef, poultry, pork or fish. Average-sized palm of the hand is 3 to 4 ounces of meat.

**Bread:** For a sandwich, use two slices of bread. As a side for pasta or a casserole, plan for one slice.

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**Sports**
- Pre-portion meals into to-go boxes.
- Individually package wraps, sandwiches, burritos, etc.
- Cook in individual mugs for easy handheld meals.
- Use thermos containers for soups/chilis on the go.
- Use muffin tins or mini loaf pans for single-service servings.

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**Cafeteria style:** Meal items are placed on a serving line and a server dishes food onto a plate or tray.

**Equipment**
These equipment items can help get meals ready fast.

- **Roasters**
- **Slow cookers**
- **Grill**
- **Different serving utensils for each item**
- **Appropriate eating utensils**
- **Single-use disposable gloves**
- **Plates and/ or bowls**
- **Food thermometers**
- **Power sources (cable, generator, light pole, power inverter)**
- **Tables**
- **Mugs or thermos containers**
- **Mini loaf pans or muffin tins**

**Other items to consider:**
- **Garbage bags/trash cans**
- **Disinfectant wipes**
- **Clean towels/blankets**
- **Cans**
- **Bags**
- **Pot holders**
- **Insulated containers for transport**
- **Extension cords if power supply is available**

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**Cold food**
Cold foods must be held at or below 40 degrees Fahrenheit. Once packed and ready, place cold foods into coolers or insulated containers with ice or ice packs. Cold food can be held for two hours at room temperature.

- Large ice packs will stay cold longer than small ice packs.
- If the ambient temperature is above 90 degrees Fahrenheit, perishable foods that are not held hot or cold are only safe for one hour.

**Reheating Food**
When reheating food, it must first have been prepared to the correct cooking temperature and held properly at or below 40 degrees Fahrenheit. When reheated, the internal temperature must reach 165 degrees or greater.
Your pantry to make soups, casseroles, stir-fry and much more. See Field to Fork (www.ag.ndsu.edu/food) for many healthful recipes and ways to incorporate more fruits and vegetables into your meals.

Here are several recipes to get you started. See the Now You’re Cookin! series at NDSU Extension for meal planning and preparation tips and recipes. See Pinchin’ Pennie$ for ways to use what is already in your pantry to make soups, casseroles, stir-fry and much more. See Field to Fork (www.ag.ndsu.edu/food) for many healthful recipes and ways to incorporate more fruits and vegetables into your meals.

**Rosemary Pecan Chicken Salad Sandwiches**

**Sandwich filling ingredients**
- 1 pound boneless, skinless chicken breast, cooked, cooled and diced
- 3/4 cup water
- 1 packet dry onion soup mix
- 2 tablespoons mayonnaise
- 1 teaspoon Dijon mustard
- 1/2 teaspoon rosemary, finely chopped

**Dressing ingredients**
- 1 tablespoon red wine vinegar
- 2 tablespoons mayonnaise
- 1 (5.3-ounce) container fat-free plain Greek yogurt

Combine 1/2 cup cooked chicken, apples, pecans and cranberries in a large mixing bowl. In a separate, small mixing bowl, stir together dressing ingredients. Season with salt and pepper. Pour dressing over chicken mixture and toss to coat evenly. Serve on whole grain bread or lettuce.

**Beef and Bean Burritos**

1/2 pound ground beef (1/2 to 3/4 pounds) 
1 tablespoon chili powder or 1 package taco seasoning 
8 large flour tortillas 
Salsa of choice

Chop onion. Brown ground beef and onion in a frying pan. Drain fat. Mix in kidney beans and chili powder. Pour a spoonful of meat mixture in the center of the tortilla. Fold opposite edges of the tortilla over the meat. Then fold both ends to the center to form a pocket. Set burrito in baking dish. Heat burritos in a covered dish for 10 to 15 minutes at 350 F. Serve with salsa. Wrap in plastic wrap then foil for an easy grab and go meal/snack.

Makes 8 servings. Each serving has 400 calories, 8 grams (g) fat, 21 g protein, 61 g carbohydrate, 7 g fiber and 790 milligrams sodium.

**Cranberry Granola Bars**

1/2 cup honey 
2 tablespoons + 2 teaspoons brown sugar, packed 
1 tablespoon + 1 teaspoon vegetable oil (syrup oil) or 1/2 cup+1/2 tablespoons lemon juice (syrup oil) 
1 1/2 cups toasted rice cereal 
1 1/2 cups dried cranberries

Preheat oven to 350 F. Combine honey, brown sugar and oil in a small saucepan. Heat over low heat until well mixed. Mix oats, rice cereal and cranberries. Add honey mixture and stir until thoroughly combined. Pat firmly into an 8-by-8-inch baking pan. Bake for 15 minutes, press firmly into the bottom of the pan once more. Bake for five more minutes. Cool completely. Refrigerate at least one hour for easier cutting. For easy serving, wrap each piece in plastic wrap.

Makes 16 servings. Each serving has 120 calories, 2 grams (g) fat, 1 g protein, 25 g carbohydrate, 1 g fiber and 15 milligrams sodium.

**Better Than Basic Muffins**

**Muffin ingredients**
- 1 1/2 cups all-purpose flour
- 2 teaspoons baking powder
- 1/2 teaspoon salt
- 1/2 cup granulated sugar

**Muffin suggestions:**
- Blueberries, blackberries, raspberries
- Dried fruit (slices or glace)
- Granola, muesli, nuts, seeds
- Muffin ideas:
  - Apple, cinnamon or orange
  - Blueberry, blackberry, strawberry
  - Chocolate chips, nuts
  - Egg substitute

Makes 24 Servings. Each muffin has 130 calories, 4.5 grams (g) fat, 3 g protein, 21 g carbohydrate, 1 g fiber and 250 milligrams sodium.

**Energy Bites**

1 cup oats
1/2 cup nut butter
1/2 cup honey or maple syrup
1/2 cup dried fruit
1/4 cup nuts
2 tablespoons flaxseed
2 tablespoons brown sugar

Combine all ingredients in a bowl and stir to combine. Chill for 30 minutes to firm up. Roll into tablespoon-size balls. For easy serving, place portions in small plastic snack bags.

Makes 24 Servings. Each serving has 75 calories, 3.5 grams (g) fat, 2 g protein, 9 g carbohydrate, 1 g fiber and 35 milligrams sodium.