

LIVESTOCK

The UM's National Centre for Livestock and the Environment is a Canadian hub for sustainability-focused research by a diverse team of animal, plant and soil scientists.



A LOOK AT OUR FOOD FOOTPRINTS

How do we balance the environmental footprint of our food with meeting the nutritional demands of the world?

UM researchers are working on this world-wide dilemma by developing:

- Tools and practices that **improve nutrient use**. For example, fine-tuning and customizing the best ways to apply manure and synthetic fertilizers based on specific crops and growing conditions.
- Accurate **Canada-specific environmental footprints** that include current farming practices and identify sustainable crop and animal management practices.
- Strategies to consider the **bigger picture** of livestock in the environment including the **benefits** of grazing cattle on biodiversity, carbon storage, soil health and wildlife habitat.

THE MANITOBA PERSPECTIVE

- Manitoba is the third largest beef-producing province in Canada with 1 million cattle on 6,400 farms in 2019.
- Many Manitoba farmers use practices like rotational grazing on land not able to grow the crops we enjoy. Grazing cattle on this land is important for improving soil health, and plant species diversity.

CONSIDER THIS...

Are all food footprints equal?

Should we consider the nutritional value and the ability of a food to feed people around the world when we calculate its footprint? For example, should we measure and value the environmental footprint of a bag of potato chips the same as an egg?

To provide a more complete picture of the impact of our food choices, new research at UM will calculate the footprint of animal products based on nutritional value. The new formula will consider the protein, energy, essential vitamins and minerals in our food.

Chew on this...

A cow takes 30 to 90 bites per minute!

DID YOU KNOW...

UM research shows every kilogram of beef produced in Canada today uses 17% less water and produces 15% less greenhouse gases than 30 years ago. For details see MAKEmanitoba.ca.

GINGER STIR FRY

A quick and easy dinner with your favourite vegetables, a tasty sauce and your choice of high quality protein grown or produced here in Manitoba.



Freezer Friendly



Under 30 mins.



Protein Choice



Manitoba grown



Reduce waste

Prep Time: 15 min Cook Time: 15 min Yield: 4 servings

INGREDIENTS

1/4 cup soy sauce	3 cups sliced hardy vegetables (broccoli, cauliflower, carrots)
3 Tbsp brown sugar	3 cups sliced tender vegetables (peppers, snap peas, zucchini)
1 cup soup stock	2 Tbsp grated ginger
1/4 cup rice vinegar	2 cloves garlic (minced)
2 Tbsp sesame oil	1 Tbsp cornstarch
2 cloves garlic, minced	2 tsp sesame seeds
1/2 tsp hot pepper flakes	2-3 chopped green onions
450g (1 lb) beef/pork strips	
2 Tbsp canola oil	

INSTRUCTIONS

- Whisk together soy sauce, brown sugar, soup stock, vinegar, sesame oil, garlic and hot pepper. Pour half into shallow dish, add meat and marinate for 30 minutes on counter. Dissolve corn starch in rest and set aside.
- Heat canola oil in large non-stick pan over medium-high heat. Add meat (discard marinade) and stir fry for 4-5 minutes until no longer pink. Remove and set aside.
- Add hardy vegetables to pan and stir fry for 3-5 minutes.
- Add tender vegetables, garlic and ginger and stir fry until tender crisp, 2-3 minutes.
- Add sauce to pan and simmer to thicken. Add meat and stir to coat evenly and heat through.
- Garnish with sesame seeds and green onions.

Nutrients per serving: Calories: 570kcal | Carbohydrate: 24g
Protein: 37g | Fat: 37g | Sodium: 640mg | Fibre: 5g

Nutrition information provided by Denise Aminot-Gilchrist, UM
Recipe developed by Professional Home Economist, Getty Stewart

TIPS:

- Try different animal proteins like chicken, turkey or salmon instead of beef or pork.
- Make it vegetarian with protein options like tofu, edamame, peanuts, cashews, black beans or black eyed peas.
- Use a frozen stir fry vegetable blend for convenience, speed and variety.
- Use Tamari sauce instead of soy sauce to make this dish gluten free.
- Toss in any vegetables or dark leafy greens you have that need to be used up.

DID YOU KNOW...

Research at the University of Manitoba is shaping sustainable agriculture and food production locally and around the world. To learn more, flip the page!