



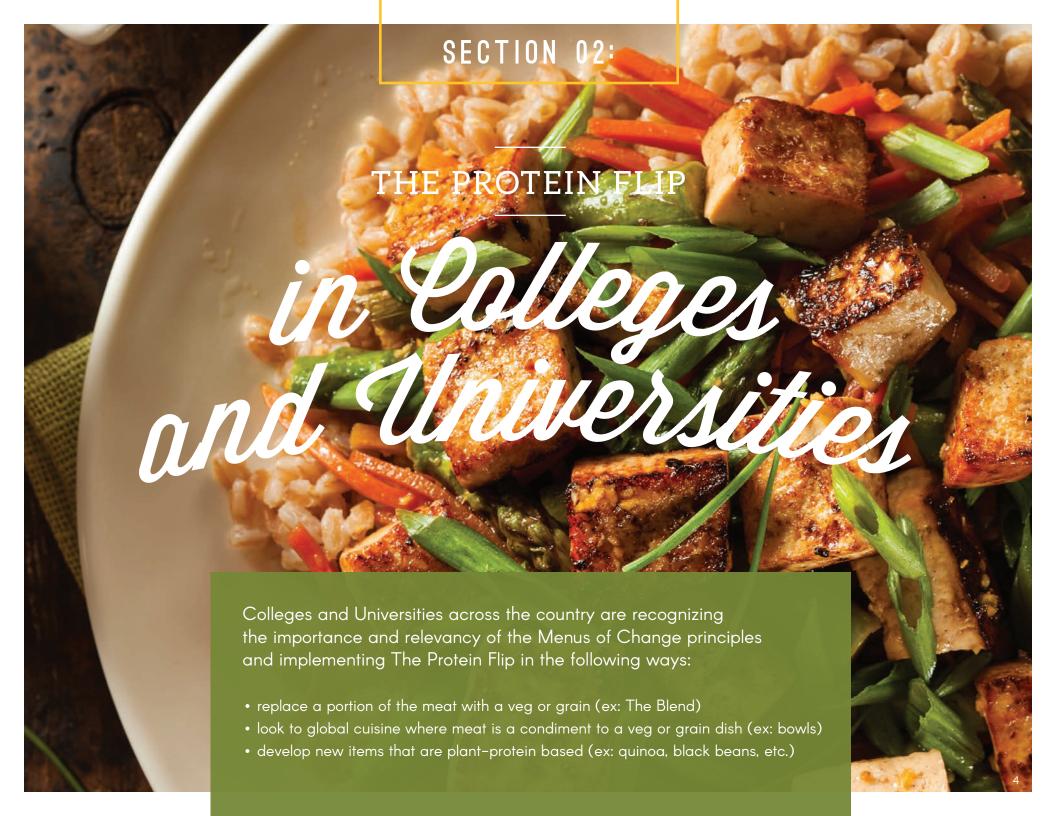
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# Barriers are encountered in any new application and The Protein Flip has not been immune to obstacles and hurdles.

#### Labor

- Introducing more procedures in production requires more labor
- Of that new labor they need to be of a higher skill level
- Who will train the new employees? How will they be trained? Need to ensure there are enough workers to do the work
- Increased labor maintaining menu management systems

### Cost

- Food costs (ie: specialty ingredients)
- Additional costs for labor

### Sourcing

- Sourcing local, fresh ingredients all year
- Consistent supply
- Finding suppliers who have the capabilities to make The Blend
- High quality ingredients

### Misconceptions

- Selling healthy and sustainable food choices when the misconception is they are flavorless
- Relaying the value of a dish without large amounts of protein included; the misconception is it's less valuable

### Serving Less

- Serving less red meat and in smaller quantities
- There could be a threat in moving meat from center of the plate to just "on" the plate
- Battling century old behavior of seeing meat as center plate and in large portions

### **OPPORTUNITIES**

- Creating menu items that fit each venue
- Creating menu items that are on-trends and feature flavors that fit with each venue
- Reduce the amount of animal proteins in the dining halls for sustainability and health
- Connecting the chefs, product and guest in a flavor first approach



"One of our barriers was beef-mushroom blend burgers. We do not have the capacity or This process took many conversations with our meat plant working through the burger. It's my advice to check with other MCURC members that distributors. There might be opportunities to scale these

~ Chandon Clenard, Executive Chef, Stanford University Dining & Catering

### HOW TO OVERCOME BARRIERS

- Pull ideas from cuisine from around the world that are already employing The Protein Flip as part of their culture (ie: Mediterranean, Chinese, etc.)
- Adding authentic international flavors to predominantly plant based menu options tend to have more adaptation and acceptance
- Think outside the box, be creative and slightly eclectic
- Focusing on specific menu categories and look for opportunities to make the shift and measure the results

- Appeal to your customer and research fun and healthy trends
- Lead with messages about flavor, rather than active health attributes
- Create messaging that tells students that their chefs care and are paying attention to how and from whom they are sourcing their ingredients
- Allow for opportunities where animal based protein can be used as a condiment vs. the center of the plate (ie: beef in pho)



At USC we try to introduce our guests to something they didn't know existed, but once they taste they can't live without.

~ Eric D. Ernest CEC, CCA, Executive Chef, USC Hospitality



"Our goal is to make sure that our guests have delicious, healthy alternatives here at UC Riverside. We are finding ways to make this protein flip work in all of our locations. Our residential halls have weekly contests utilizing meat protein as grains and vegetables are the main attraction."

~ Burke J. Reeves, Executive Chef, UC Riverside Retail Dining & Catering





- Continue to train "The Protein Flip" culture to culinary staff, managers and student workers
- Contests and challenges with career cooks and students
- Develop dedicated research groups and student driven initiatives/movements such as "Students for Change" at UC Riverside and "Tasting Tables" at Stanford
- Develop on-campus culinary training. Have some on campus programs for culinarians to engage them with food; they will innovate with the food grown from that activity (ex: USC Hospitality's teaching garden).
- The Blended Burger Project at college/university level challenges chefs to reimagine an American classic by utilizing The Blend. It offers a unique opportunity for college or university chefs to cook at the James Beard House; an opportunity they might not get elsewhere.



Acceptance, buy-in and approval from chefs, students and even facility is important whenever rolling out such a large initiative. Here are some of the ways The Protein Flip has been embraced and supported across campuses.

#### Chefs

- Chefs have fully embraced the change in menu and will often internally compete with one another to come up with the best "flips"
- Chefs appreciate that the decrease in protein use has allowed them to upgrade the quality of meat
- Provide constructive criticism and feedback when something is not working
- Create a menu team or tasting profile team to have internal tastings (ex: USC Hospitality chef counsel provides feedback to menu development teams)

### Faculty

- The faculty recognizes chefs on campus are serving healthier menu items and acknowledging the change
- Take these menu options to a small menu taskforce made up of residential advisors, facility who live on campus, etc. (ex: USC has a Master Dinner where the master facility hosts an event and it connects the faculty with the chefs. Gives them an opportunity to test new concepts.)

#### Students

- Students appreciate the healthier options as long as they are flavorful
- Students appreciate being consulted on menu changes (ex: Students for Change type initiatives)

"I love the unique international options in USCs' residential restaurants, the menus reflect the rhythm of the season and there are plant based and animal based proteins available. The chefs put spice mixes on proteins that pack a lot of flavor and I'm not too full for class afterwards. The portions are nice and I like that my classmates aren't wasting food at the end of their meal."

University of Southern California Student





# WHAT DISHES ARE COLLEGES + UNIVERSITIES "FLIPPING"?

Universities & Colleges are Flipping and here's how they are doing it!

### The Flip: Meat as a Condiment

- Chicken Fennel Rosemary Sauté, French Lentils, with Sautéed Vegetables at UCLA
- Petite Tenders of Beef with Portobello Mushroom & Onion at Libby & Sewall U of Colorado
- Bacon & Pea Risotto at University of Colorado
- Vegetable Shrimp Wonton and Indian Sweet Potatoes & Lentils at Asian Shi Pin, University of Colorado
- Chorizo Breakfast Sandwich with Mushroom Gravy at Iowa University



Chipotle Chicken, Brown Rice & Avocado Bowl by University of Colorado Boulder: Sliced Chipotle crusted chicken strips sit atop a bed of brown jasmine rice and topped with a cilantro mayo dressing and sliced avocado.

"Serving healthy meals is very important for us at Cornell Dining. We like to make sure our students have a variety of options to choose from. Fresh mushrooms our pizzas, in the pastas and even on our salad bar. Of course in veggie burgers, they are a must! as a meat alternative on campus. The Blend (meat and mushrooms together) would increase health, That's a win-win for me as the dietitian, and for our chefs!"

~ Michele Wilbur, RD, CDN, Cornell Dining Registered Dietitian

### Recipe:

### Mushroom and Chicken Quinoa with Chiles



### Ingredients:

4 cups quinoa

Cooking spray

2 pounds boneless, skinless chicken breast

1 1/4 cups olive oil (divided)

8 cloves garlic, finely chopped

4 pounds oyster mushrooms, halved

2 large red onions, cut into ½-inch dice

1 small red chili pepper, seeded and cut into ½-inch dice

2 large green bell peppers, seeded and cut into  $\frac{1}{2}$ -inch dice

2 large red bell peppers, seeded and cut into  $\frac{1}{2}$ -inch dice

1 cup fresh parsley, chopped

1 cup fresh scallions, chopped

l teaspoon red pepper flakes

3 teaspoons sea salt

½ teaspoon freshly ground black pepper

1 ½ cups fresh lemon juice

1/4 cup balsamic vinegar

2 cups Cotija cheese, crumbled

### Directions:

- Rinse quinoa thoroughly. Place in a large stockpot with 8 cups of water; simmer 15 20 minutes. Remove cooked quinoa to a 2-gallon bowl; partially cover and keep warm.
- Heat oven to 350 degrees. Generously coat a hotel pan with nonstick spray; lay out chicken breasts and roast for 12 – 15 minutes. Remove from oven and set aside until cooled.
   Once cooled, cut into 1-inch pieces.
- 3. Increase oven temperature to 450 degrees. In a large bowl toss together 1/4 cup olive oil, garlic, mushrooms, onion, peppers, parsley, scallions and red pepper flakes. Place mix on sheet pan and cook until vegetables are tender, about 10 minutes. Stir after 5 minutes.
- 4. Stir cooked vegetables into warm quinoa; season with salt and pepper. Drizzle mixture with lemon juice, balsamic vinegar and remaining 1 cup olive oil. Toss until evenly mixed.
- 5. Stir in diced chicken and cheese; toss again. Serve warm.

### **Nutrition Facts:**

1 Serving : Calories: 339; Total Fat: 18g; Saturated Fat: 4g; Cholesterol: 36g; Sodium: 45mg;

Protein: 18g; Carbohydrates: 28g; Dietary Fiber: 5g

# THE FLIP: Global Euisine

- Cuban Bowl at the University of Alabama/Tuscaloosa
- Pho Proteins: Seared chicken, tofu, beef brisket, scallions, bean sprouts, cilantro, mint leaves, Thai basil leaves, lime wedges, sliced jalapeno, shredded carrots, red peppers at Vanderbilt University
- Indian Chicken Tikka Masala Bowl from Forbes Family Cafe at Stanford
- Bento box and Rice Bowl Specials, featuring cuisine from Malaysia, Korea, Thailand, at Arrillaga Alumni Center. Stanford
- Moroccan Harira Couscous, Village Express, University of Colorado
- BBQ Beef Korean Tacos with Green Bean and Potato Salad Cafe Bon Apetit at Duke University



### Moroccan Quinoa by THE BARN, UC RIVERSIDE:

Roasted Brussels sprouts, edamame, asparagus, eggplant, squash and red onion are tossed with a fragrant Moroccan spice blend made with cumin, ginger, caradmon, coriander, allspice and cloves and served with a protein rich Harissa quinoa.



### Recipe: Thai Eurry Mushrooms and Tofu



Yield: 24 servings
Serving Size: 1 cup

### Ingredients:

4 pounds extra firm tofu, drained

1/4 cup Thai green curry paste

4 (13.66 ounce) cans coconut milk (divided)

3 tablespoons olive oil

1/4 cup brown sugar

1/4 cup fish sauce (optional)

2 pounds shiitake mushrooms, halved

2 pounds cremini, mushrooms, halved

2 medium onions, cut into 1-inch dice

3 medium red peppers, seeded and cut into 1-inch dice

4 cups green beans (fresh or frozen and thawed), cut into 2-inch pieces

4 limes, juiced

1 cup fresh basil, coarsely chopped

2 teaspoons sea salt

1 teaspoon freshly ground black pepper

Optional: cooked white or Basmati rice

#### **Directions:**

- 1. Slice each block of drained tofu into 8 rectangles. Place two layers of paper towel on a sheet tray and top with tofu slices. Place two more layers of paper towel on top of the tofu, followed by another sheet tray. Weigh with a skillet or heavy can for about an hour to squeeze out excess moisture. Dice each rectangle into 4 pieces.
- 2. Mix green curry paste with half of one can (about 7 ounces) of coconut milk in a small bowl. Heat olive oil in a 4-quart saucepan over medium heat. Add green curry coconut paste slowly, cooking until fragrant. Stir in remaining coconut milk, brown sugar and fish sauce (if using); bring to a simmer and cook for 3 4 minutes.
- 3. Add mushrooms and onion to saucepot; cover and simmer 3 4 minutes. Gently stir in tofu; cover and simmer 3 4 minutes. Add peppers and green beans; simmer partially covered 3 4 minutes. Stir gently to avoid breaking up tofu.
- 4. Stir in lime juice and basil until well combined; season with salt and pepper. Serve with white or basmati rice, if desired.

#### **Nutrition Facts:**

(for 1 cup): Calories: 259; Total Fat: 20g; Saturated Fat: 13g; Cholesterol: Og; Sodium: 262mg;

Protein: 12g; Carbohydrates: 13g; Dietary Fiber: 3g

## THE FLIP: Plant Forward Protein

- Autumn Harvest Wedge at University of New Hampshire
- Farro Apple Shaker Cup at UC Riverside
- Zucchini Cakes with Greek Yogurt served with Cranberry Apricot Couscous and Roasted Cauliflower with Garlic at UMASS, Hampshire Dining Hall
- Jamaican Jerk Mushroom Lettuce Wraps with Papaya Salsa at UMASS
- Award-winning Power Bowl at Boston College
- The Palm burger, brown rice, quinoa, and bulgar with roasted corn, black beans and roasted red peppers at the Axe and Palm, Stanford
- Grilled Tempeh over Lemon Garlic Vegetable Pasta, University of Colorado
- Black Bean and Beet Burgers at Cafe Bon Apetit at Duke University
- Roulade of Baked Eggplant with Spring Vegetables, Bright Farms Baby Kale & White Bean Confit at Princeton University



### Autumn Harvest Wedge by University of New Hampshire:

Green wheat freekeh is served on top of crisp baby iceberg lettuce and tossed with roasted butternut squash, dried cranberries, walnuts, honey crisp apple and drizzled with a maple cider vinaigrette.



### Recipe: Black Bean Quinoa Burger



### Ingredients:

3 cups black beans, cooked

½ cup cooked quinoa

2 tbsp scallions, chopped

1 tsp chili powder

4 multigrain buns

2 tbsp red pepper, diced

2 tbsp yellow pepper, diced

1 tbsp cumin

l tsp cayenne pepper

### Directions:

- 1. In food processor puree the cooked black beans.
- 2. Place black beans and remaining ingredients in a mixing bowl; mix well.
- 3. Form mixture into 4 oz patties.
- 4. Serve atop a multigrain bun. Top with toppings.

## THE FLIP: *The Blend*

(ie: blending mushrooms or vegetables with meat)

- Earth n' Turf Burger at UC Riverside consists of a blend of roasted wild mushrooms, garlic and grass-fed beef
- Menage Trois Burger at The Lab Gastropub at USC
- Chicken and Waffle Burger at McKays at USC
- Stanford University is blending 100% of their burgers, meatballs, meatloaf, Kafta and lamb burgers
- Blended beef-mushroom meatloaf at Texas A&M University
- 50/50 mushroom blended sausage at Texas A&M University
- Blended crabcakes at UMASS
- Mushroom-Potato-Chorizo Tacos at UMASS
- Crimini and Pork Meatballs at UMASS



### Earth n' Turf Burger by THE GLEN MOR MARKET, UC RIVERSIDE:

Wild mushrooms are blended with grass-fed ground beef and topped with a roma tomato and ginger chutney, arugula, tomato slices, grilled red onions and mayo.

"Our guests really enjoy the added umami and the texture from blending mushrooms, vegetables or grains and high quality animal proteins. As a chef, it is important to me that our future leaders and decision makers are getting the nutrition and flavor at the same time.

The blend is great because we can lead with flavor while reducing calories, cholesterol and carbon emissions."

~ Chef Steven Miller. Cornell University

### Recipe: **Castropub Style Better Burger**



### Serrano Mushroom Duxelle Yield: 2 lb

### Ingredients:

1 cup shallot minced

1 cup garlic minced

½ cup serrano minced

3 lbs. button mushrooms small dice

1 lbs. shiitake mushrooms small dice

1 lbs. maitake mushrooms small dice

2 cups white wine

Salt & Pepper to taste

1/4 cup chopped parsley

½ cup evoo

#### Directions:

- 1. Coat hot pan with oil.
- 2. Sweat shallot, garlic and serrano until soft and translucent.
- 3. Add mushrooms and sauté until golden brown and mushrooms start to release liquid.
- 4. Add a small amount of seasoning, deglaze with wine and simmer until au sec.
- 5. Taste and adjust seasoning with salt and pepper.
- 6. Cool on a sheet pan lined with parchment paper

### Gastropub Better Burger Patty

Yield: 5.75 lbs - 15 6oz burgers

### Ingredients:

2 lbs. serrano mushroom duxelles

2 lbs. ground Shelton turkey

1 lbs. ground Spanish chorizo

12 oz blue cheese crumbles

#### Directions:

Lightly mix all ingredients and form into 6oz patties.

This burger is grilled over hardwood and served on an onion roll with cilantro lime aioli, creamy Cambozola, roasted pasilla chilli, arugula and a drizzle of vegan demi glace.

### Recipe: *Gastropub Style Better Burger (cont.)*



### Vegan Demi-Glace

### Ingredients:

1/4 c Olive oil

1 c Carrots, roughly chopped

1 c Celery, roughly chopped

1 c Leeks, diced

2 c Onions, roughly chopped

1 c eggplant, roughly chopped

1 c fennel, roughly chopped

1 c shitake mushrooms, roughly chopped

1 12 in piece of kombu, cut into 4 pieces

½ c Shallots, minced

1/4 c Garlic, minced

2 T Tomato paste

2 c Red wine, dry

2 Bay leaf

5 Thyme sprig

5 peppercorns

6 cups vegetable or mushroom stock

#### Directions:

- 1. Heat olive oil over medium heat in a . Add the all of the vegetables, shitake, garlic and kombu-sweat for about 8 minutes, until soft and translucent.
- 2. Mix in tomato paste and place in 375 degree oven until vegetables are roasted and almost dark brown(about 35 minutes).
- $\ensuremath{\mathtt{3.}}$  Deglaze with red wine and add bay, thyme and peppercorns.
- 4. Reduce wine until au sec and add vegetable stock.
- 5. Reduce by half and strain.
- 6. Thicken with arrowroot or xanthan gum until desired thickness.

### CASE HISTORY

### The Protein Flip in Commercial Dining: The Blended Burger Project

In 2015 The James Beard Foundation partnered with the Mushroom Council to launch a contest that would inspire chefs to create "better burgers" using at least 25% mushrooms. The contest required chefs to menu The Blend and have guests that purchased the burger post a photo to Instagram tagging the restaurant. Five winners, based on the number of Instagram posts, were selected at the end of the campaign and flown to New York to serve their "better burgers" at the historic James Beard House on October 18, 2015.

From May 30 to July 31 chefs across the nation served their blended burgers to hungry guests. At the end of the campaign when all the burgers were severed, the plates were cleared, and the Instagram posts counted, five winners emerged:

- Chef Dan Nichols, Quaff ON! Bloomington, IN; Triple B, 25% chuck, 25% short rib and 50% sirloin burger is blended with crimini mushrooms, porcini mushroom powder, pimentos and roasted green chiles.
- Chef Carolyn Manning, Blue Southern Comfort, LA; The Blue Mushroom Burger, a healthy, more sustainable burger made with a mushroom beef blend, topped with melted Pepper Jack and sautéed mushrooms.
- Chef Rob Ray, Belly Acres, TN; Mushroom State of Mind, topped with pickled squash, roasted red peppers, bibb lettuce and ginger-lime aioli.
- Chef Lorin Watada, Bachi Burger, Las Vegas, NV; Los Angeles, CA; Pasadena, CA; Wild Mushroom Lamb Tikka Burger, topped with tomato chutney, dill raita, and pickled onion.
- Chefs Fiore Moletz and Kiel Campbell, Burgh'ers, Harmony, PA; James Beard Better Burger Special, a burger and mushroom mix patty topped with spicy avocado cream cheese, roasted red peppers, pickled onions and romaine.



"There is so much versatility in the use of mushrooms in cooking. I love to add mushrooms to a burger to make it moist and succulent... who doesn't love a good burger?"

~ Chef Maneet Chauhan, Chauhan Ale & Masala House, Nashville



Winning Chef, Dan Nichols, from Quaff ON! commented on The Blend and his participation in the campaign:

"After reading about the contest, the idea of creating a blended burger intrigued me, so I started testing various recipes. Being in the top five throughout the project came as a surprise to me. Having the opportunity to go to the James Beard House and prepare food will have a profound impact on me as a chef."

From quick serve restaurants and steakhouses, to luxury hotels and burger joints, the contest hosted approximately

225 independent restaurants from across the nation, many of whom are now menuing The Blend permanently.

Over 100,000 burgers were served, 8,000 + Instagrams were posted, and many restaurants shared

"this was the most successful special they ever ran," making the concept and initiative a success.

### RECIPES FROM WINNING CHEFS:



### Belly Acres Mushroom State of Mind Burger

Belly Acres' "State of Mind Burger" features 25% mushrooms that are blended into the ground beef. It is then grilled to perfection and topped with a with Ginger-Lime Aioli, Pickled Summer Squash, Roasted Red Pepper and served on a lightly toasted potato bun.



Photo courtesy of Chef Rob Ray, Belly Acres Restaurant

### Wild Mushroom and Ground Lamb Jikka Masala Burger

Ground lamb blended with finely chopped Shiitake, Chanterelle, Shimeji and Enoki mushrooms, topped with Leaf Lettuce, Tomato Chutney and Raita on a Brioche Bun



Recipe and photo courtesy of Bachi Burger

### Ingredients:

- 8 Ounces Ground lamb
- 1/2 Yellow Onion Fine diced
- 3 Ounces Mushrooms Shiitake, Chanterelle, Shimeji, Enoki (small diced)
- 1 Ounces King Oyster Mushrooms (small diced)
- 1/2 Teaspoon Fine chopped ginger
- 1/2 Teaspoon Fine chopped garlic
- 1/2 Teaspoon Fine chopped mint
- ½ Teaspoon Fine chopped fresh oregano
- ½ Teaspoon Fine chopped cilantro
- ½ t Teaspoon Toasted curry powder

Pinch Cayenne paper

Salt and Pepper to taste

4 oz House Marinade (Sake, Mirin, Dashi Water, Kombu Extract, Bonito,

Sugar, Dark Corn Syrup) for Grilling

#### Directions:

- Dice king oyster mushrooms and toss with Extra Virgin Olive Oil (EVOO), salt and pepper. Place diced mushrooms on lined half sheet pan and roast in oven at 275 degrees until crispy. Reserve, set aside and cool down.
- 2. Next, sweat your ginger and garlic with EVOO. Turn heat up and add mushrooms, season with salt and pepper. Careful not to overcook the mushrooms, as they will be processed in a robot coupe later. Reserve, set aside and cool down.
- 3. Chop all your herbs separately and keep in small plastic del cup once chopped completely.
- 4. Toast curry and cayenne. Set aside.
- 5. Once mushrooms are fully cooled down, combine all of them in a robot coupe and pulse lightly. Do not over pulse.
- In a separate bowl combine your lamb, mushrooms, and spice.Mix well, season with salt and pepper.
- 7. Form patties in 6oz portions. Grill. Serve topped with Leaf Lettuce, Tomato Chutney and Raita on a Taiwanese Sweet Bun.