

Manitoba Pulse Growers Association Study

Edible Bean Recipes

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Final Report

December 5, 2014



RED RIVER
COLLEGE

SCHOOL OF HOSPITALITY
AND CULINARY ARTS

Research conducted at RRC's Paterson GlobalFoods Institute (PGI) made possible through funding from Manitoba Pulse Growers Association.

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Photo: Gluten Free Shortbread with Bakers Jam

Project Objective

A Chef instructor from Red River College School of Culinary Arts experimented with different edible bean products, including flours, purees, and ready-to-eat beans, to come up with 10 new recipes containing edible beans. The chef looked at unconventional uses for bean products to enable people to enjoy beans in a variety of easy to consume forms. The goal is to maximize the quantity of beans in each recipe without affecting the taste or texture of the food. This could help people obtain the recommended ½ a cup of beans per day through one or two products.

Materials

Local bean processors, Best Cooking Pulse and Canadian Prairie Garden Puree, both located in Portage la Prairie, provided bean ingredients for the project. Best Cooking Pulse provided Navy Bean and Pinto Bean flour. Canadian Prairie Garden Puree provided a navy bean puree. Black bean flour was sourced through a RRC ingredient supplier. Cranberry puree was made in-house by soaking, cooking and pureeing cranberry beans.

Results and Comments

When a chef incorporates new ingredients or develops a new recipe, all senses are employed to assess the final results. The resulting dish must look, smell, feel, and taste delicious. Food is more than sustenance; it is an experience. This remains true with adding nutritious ingredients, such as pulses, to recipes. The goal of this project was to add in nutritionally packed pulse flours and purees to a variety of baked dishes without affecting the taste, look, or performance of each product. The challenge with replacing wheat flour is the loss of structure provided by gluten. By blending flours, the chef was able to add in the extra nutrients found in bean flour to many foods thereby demonstrating the versatility of edible beans in boosting the nutritional profile of recipes. The following ten recipes were developed for this project:

- Spinach Linguine with Shitake Mushroom Cream Sauce
- Exotic Fruit Shortcakes with Key Lime Mousse
- Garlic Roman Flatbread with Jalapeño Brick Cheese
- Chicken & Bean Pot Pie with Pinto Pie Crust
- Gluten Free Shortbread with Baker's Jam
- Pulled Chicken, Roasted Garlic and Smoked Gouda Perogies
- Gluten Free Padano Grana Soda Crackers with Fresh Thyme
- Almond Flavored Chocolate Espresso Cake
- Orange and Navy Bean Crème Brulee
- Pinto Bean and Chia Seed Power Balls

All recipes are available in Appendix A

Chef Observations

- The navy bean flour was the easiest of the three flours to substitute for wheat flour. The color was the closest to the wheat flours and had the least “bean” flavor of the three. Yeast doughs were the easiest to transform adding navy bean flour.
- The black bean flour was well suited to chocolate dessert applications. The black bean flour was the middle of the road as far as taste was concerned. The flavor of the bean was prominent in the raw batter but once the recipe item was baked, the flavor had noticeably decreased. Indigestion and gas effects were noticeable approximately 1 hour after eating products made with the black bean flour. The black bean flour also gives pastas/dumpling a very unique color effect; almost like spotted squid ink pasta.
- The pinto bean flour was the most difficult to work with. It has a very strong “bean” flavor that was hard to mask in the recipes. Also its natural color did not lend itself well to many desserts. The best application for this flour to hide its color was in a form of a pie crust. It could possibly work in choux pastry as well.
- In all 3 pulse flours if a recipe called for 2 cups of all purpose (AP) flour, the substitution ratio could be no higher than 1 ½ cups AP flour to ½ cup pulse flour before either the taste was too strong, or the product’s stability would not hold up. There were no real differences in the 3 pulse flours texture, but the pinto bean flour seemed to be the “heaviest”.
- The navy bean puree worked well in the crème brulee. It made the brulee a bit denser and ever so slightly grainy, but it was difficult to pick out if you didn’t know the beans were added. In a second trial of the chocolate cake, it substituted very well for the 2% milk (once the puree was thinned down to a light cream consistency). The navy bean puree would also work well in a fruit smoothie replacing the yogurt.
- The cranberry bean puree worked well in the power bars. It would make a good substitute for a squash puree such as pumpkin. Pinto bean pie is a strong possibility.

Conclusions

Approximately 25% to 40% of wheat flour can be replaced by bean flour, or puree, in a variety of recipes without affecting the taste and/or texture of the resulting dish. On one dish alone this will not achieve a ½ cup serving a day, but when combining several dishes throughout the day, people could easily and gradually increase their pulse intake. Although the taste isn't altered, there must be a change in attitude toward pulses and healthy foods in the food service industry. Initial reluctance could be overcome through education and taste tests, both at the chef and consumer levels. Creating delicious and practical recipes is a first step.



Photo: Perogies made with pinto, black and navy bean flours served with spicy sour cream

Appendix A: Recipes

Spinach Linguine with Gingered Shiitake Mushroom Cream Sauce

Recipe Yield	Approx. 750g raw pasta dough	
Pasta Recipe		
	100g	Pinto bean flour
	400g	All purpose flour
	150g	Eggs whole
	60g	Egg yolks
	90g cooked	Spinach leaves washed, stems removed (approximately 500g raw)
	to taste	Salt
Sauce Recipe		
	60g	Butter, melted
	100mL	Yellow onion, small dice
	65g	All purpose flour
	1.25L	Chicken stock, heated
	400mL	Whip cream, heated
	100mL	Gingerroot, coarse chop
	to taste	S/P
	30mL	Butter
	80mL	Yellow onion small dice
	30mL	Garlic minced fine
	240g	Shiitake mushroom caps sliced thin
	100mL	Sauvignon blanc
	15mL	Worcestershire sauce
	45mL	Lime juice fresh

Bring a large pot of lightly salted water to a boil. Blanch the spinach leaves in the boiling water for approximately 15 seconds. Remove the leaves from the water and shock in a bowl of ice water or under cold running water. Once the leaves are completely chilled through, remove the spinach leaves from the ice water, and thoroughly squeeze the excess water off.

In a blender, puree the spinach with the eggs.

In a large stainless steel bowl, combine the egg/spinach puree with the two flours. Remove the mixture to a lightly floured table and knead the dough for approximately 3-4 minutes. Cover with cling film and let rest for 35-40 minutes.

Using a pasta machine, set for making linguine and follow the steps outlined in the manual to make the pasta dough into linguine.

To par cook the linguine, bring a large pot of lightly salted water to a boil. Add fresh linguine and

cook to al dente. Remove the pasta from the water. Serve hot with sauce.

To store fresh pasta: drain and cool (by submerging under cold running water until completely chilled through), toss with vegetable oil to prevent sticking, wrap well and refrigerate until needed. Fresh linguine will keep for 3 days refrigerated.

For Sauce

In a heavy bottom 5L saucepan, add the melted butter and heat. Add the onions and saute until tender. Add the flour and cook to a blond roux over low-medium heat for approximately 10-12 minutes, stirring with a wooden spoon. Add the coarse chopped gingerroot. Add the warmed chicken stock in batches and bring to a boil stirring constantly. Reduce heat to a simmer and cook out the roux for 20 minutes, skimming when necessary. Add the heated cream to the sauce. Check for seasoning and strain the sauce into another 5L saucepan.

In a large fry pan, melt the butter and saute the onions and garlic until tender but do not brown. Add the sliced mushrooms and saute on high heat for approximately 3-4 minutes. Add the wine and cook until all of the liquid has reduced by 75%. Season the mushrooms with salt and pepper to taste. Add the sautéed mushrooms to the cream sauce.

Flavor the sauce with the Worcestershire and lime juice. Keep on low heat if using right away or chill the sauce completely first, then wrap with cling film and refrigerate.

Garlic Roman Flatbread with Jalapeno Brick Cheese

Recipe Yield 48 Pieces Cut 2" x 2"

25g	Sugar, granulated
20g	Yeast, instant
565g	Water, tepid
675g	Bread flour
175g	Navy bean flour
235g	Onion small, diced
40mL	Garlic, minced fine
20mL	Canola oil
225mL plus 180mL	Olive oil
15g divided	Kosher salt
35mL	Rosemary leaves, fresh, chopped fine
250g	Jalapeno brick cheese, grated

Add canola oil to a 10" sauté pan. Heat until it just begins to smoke. Add onions and garlic. Toss every 10 seconds until the onions/garlic are caramelized. Transfer the caramelized mixture to a separate bowl. Cool to room temp.

Sift the bread and bean flours with half of Kosher salt together into the bowl of a food mixer. Dissolve yeast and sugar in the water and stir. Add yeast mixture to the flour. Using a dough hook, turn the machine to speed 1 and let the dough mix. Occasionally stop the machine, lower the bowl to scrape the flour into the liquid to better incorporate the dough. Raise the bowl up and continue to knead on speed 1 for approximately 7-8 minutes. Test a piece of dough using the windowpane method¹. If you get a good pane, add the caramelized onion mixture and knead for one more minute. This is a wet dough.

Spray the inside of a large stainless steel bowl, (the deeper, the better) with pan release spray (spray both hands as well to prevent dough sticking). Transfer the dough to the sprayed bowl. Lightly spray the top of the dough and cover with cling film. Leave on the counter for 1 hour or until doubled in size.

Using the 225mL amount of olive oil, generously oil the bottoms, sides and lip of your sheet pan. Remove the cling film and invert your dough onto the sheet pan (18" x 13" x 1 inch deep). Gently spread the dough out to the corners. Do not push the gas out of the dough. Proof in the oven with a pan of water in the bottom of the oven for approximately 25 minutes.

Remove the pan of dough from the oven. Drizzle remaining olive over top. Sprinkle top with remaining Kosher salt and rosemary. Remove the pan of water from the oven and turn your oven up to 450°F. Bake on the second lowest rack for approximately 15 minutes or until the bread turns a light golden appearance. Remove from the oven and sprinkle cheese on top. Continue to bake for another 4-5 minutes or until the cheese has completely melted. Remove from the flatbread from the oven and transfer to a cooling rack. Let rest for 10-15 minutes before cutting into desired portions.

¹ Windowpane method www.thekitchn.com/bakers-techniques-how-to-do-th-70784

Chicken-Pinto Pot Pie with Pinto Bean Crust	
Recipe Yield	10 Shells for French Onion Soup Bowls
Pie Dough Crust	
300g	Pastry flour
170g	Pinto bean flour
10g	Salt
10g	Sugar, granulated
285g	Crisco shortening
130g	Ice water
12 sheets as needed	Parchment paper All purpose (AP) flour for dusting
Pot Pie Filling	
1kg	Chicken meat, cooked and diced $\frac{3}{4}$ inch cubes
300g raw	Pinto beans soaked overnight and simmered in water to fork tender.
1L	Chicken stock or flavorful broth heated
100g	Butter or margarine
75g	All purpose flour
50g	Pinto bean flour
500mL	Milk, hot
500g	Mushrooms, quartered
175g	Onion, fine dice
20mL	Garlic, minced fine
100g	Butter or margarine
45mL	Basil leaves, fresh, coarse chop
150mL	White wine
to taste	Salt & Pepper
15mL	Tabasco sauce
20mL	Worcestershire sauce
Half lemon	Lemon juice, fresh
500mL	Whip cream, scalded
500mL	Frozen peas, thawed
1 large pepper	Red pepper, $\frac{1}{2}$ inch diced and blanched.

Dough Preparation:

Cut shortening into small pieces and scatter on a parchment paper lined cookie sheet. Place in the freezer for 40 minutes to completely chill the shortening.

Sift the two flours, sugar and salt into a large stainless steel bowl. Using your fingers (or pastry knife) crumble/cut the chilled shortening into the flour mixture until coarse crumbs are formed. Pour in water and quickly/lightly form the dough. Place the dough onto a parchment-lined pan and press to about 1 ½ inch thick. Cover completely with cling film and let rest in a refrigerator for a half hour.

Remove the dough from the fridge. Scale the dough off to 90g balls.

Lay a sheet of parchment paper on a work table and dust with AP flour. Place the one ball over top and dust with AP flour. Place a second sheet of parchment on top and roll the dough out. Roll a bit on one side, flip the dough over, lift the top sheet off and lightly dust. Flip the dough over again, lift the other sheet off and dust again. Keep rolling and repeating the dusting procedure above until the dough is approx. 1/8th of an inch thick. Repeat with remaining balls of dough. Cover again with cling film and refrigerate the disks for another 20-30 minutes.

Filling Preparation:

In a 10-inch non-stick sauté pan add 100g of butter and sauté the onions and garlic until tender. Add mushrooms. Continue to sauté until mushrooms develop a caramel color. Season the mushrooms with salt and pepper to taste. Add white wine and cook until the wine has reduced until nearly dry (au sec) Add basil and remove from the heat.

In a 7quart heavy bottom sauce pan (pot) add 100g of butter to the pan to melt. Add the two flours and cook over low-medium heat for 10 minutes stirring constantly.

Blend heated chicken stock into your white/blond roux (cooked flour butter mixture) gradually along with your milk and stir. Whisk the mixture using a wire whisk (only if your saucepan is stainless steel) to remove any lumps. Simmer for 2-3 minutes and remove from the heat. Add whipping cream, tabasco, Worcestershire and lemon juice. Check for seasoning and adjust if necessary.

Add cooked chicken meat, cooked pinto beans, peas and red pepper. Remove from heat. Chill completely, cover with cling film once chilled and refrigerate until needed.

Pot Pie Preparation:

Preheat your oven to 350°F. Divide the filling evenly between 10 French onion soup bowls. Brush the lip of the soup bowl with egg wash. Cover with a round lid of pie crust, cut a hole in the middle to vent. Crimp the edges.

Place the soup bowls on a sheet pan and bake on the lowest rack for approximately 30 minutes or until the crust is golden. Remove from oven and let rest for 2 minutes before eating.

Pulled Chicken, Roasted Garlic Mashed Potato and Smoked Gouda Perogies	
Recipe Yield	6 dozen perogies
Dough	1 large Egg 5mL Salt 300mL Water 60mL Vegetable oil 750mL All purpose flour 230mL Navy bean flour (or pinto bean flour for a unique dough colour)
Filling	250g Cooked chicken, meat pulled and coarsely chopped 460mL Apple juice 60mL Apple cider vinegar 1 onion Yellow onion, peeled and quartered 600g Russet potatoes, peeled and cut in half lengthways 250g Smoked gouda, grated using fine side of a 4-sided grater 1 medium bulb Garlic cloves, peeled, brushed with vegetable oil, roasted until golden brown. 45mL Green onion, sliced razor thin 200mL Barbecue sauce to taste Salt and pepper
<p>For the Perogy Dough: Add wet ingredients to dry. Add a bit more water if necessary. Knead the dough for 3-4 minutes. Place dough in a bowl, cover tightly and refrigerate the dough for half an hour to rest.</p> <p>For the Filling: Place the quartered onion, apple juice and vinegar and cut up fryer chicken in the bottom of a slow cooker (crockpot). Cover with the lid. Cook overnight. Remove chicken from the cooker, discard skin and bones. Shred the breast and chicken meat. Place potatoes either in a steamer or in a pot of lightly salted cold water. Steam the potatoes until tender enough to mash, or bring your pot of water to a boil and cook the potatoes to mash tender. Mash the potatoes (or run them through a food mill for best results) with the cheese and roasted garlic. Add the cooked chicken, barbecue sauce and green onion to the mix. Season with salt and pepper to taste.</p> <p>Using a bench scraper (or knife) cut a ¼ piece of the dough off and roll to approx. 1/16th of an inch thick. Cut rings out using a 2 inch pastry ring cutter. Place approximately 1/2 tbsp. of filling into the ring, rub water on the edge of the dough and press to seal. Crimp with a fork if you so desire. Repeat until all filling and dough is used.</p> <p>To Cook: Bring a pot of lightly salted water to a boil and cook the perogies in batches until they float to the surface. Remove and serve immediately or cool down in water, drain well.</p> <p><u>If freezing:</u> toss the perogies with generous amounts of vegetable oil to prevent sticking.</p> <p><u>If eating immediately:</u> pan fry in margarine or butter. Serve with sour cream or for extra spice add hot sauce to the sour cream.</p>	

Exotic Fruit Shortcakes with Key Lime Mousse	
Recipe Yield	12 Portions
	For the Cream Scones
360mL	All purpose flour
120mL	Navy bean flour
10mL	Baking powder
1.25mL	Salt
75g	Unsalted butter, chilled and cut into small pieces room temp
1 large	Egg
120mL	Half and half cream, chilled
5mL	Vanilla extract
As needed	Whipping cream, chilled
	For the Key Lime Mousse
180mL	Key lime fresh (or bottled lime juice is fine)
3	Eggs
3	Egg yolks
120g	Unsalted butter, chilled cut into ½ inch cubes
120g	Sugar granulated
10g	Unflavored gelatin
500mL	Whipping cream, chilled
	For the Topping
500mL	Whipping cream, chilled
7.5mL	Vanilla extract (pure)
45mL	Icing sugar (whip the cream until soft peaks form, add the icing sugar and continue to whisk until stiff peaks form. Cover and refrigerate)
400mL	Strawberries, fresh quartered
240mL	Blueberries, fresh
6 only	Kiwi fruit, peeled and cut into 8 wedges

Prepare the key lime mousse the day before

In a chilled mixer bowl whip the whipping cream to soft peaks. Cover and refrigerate until needed.

Put a pot of water on low-medium heat to a low simmer. Have another smaller pot of water boiling. Sprinkle gelatin over a small bowl of 20g of water to bloom. Combine eggs, yolks, granulated sugar and lime juice in a stainless steel bowl that will fit on the pot of simmering water. Set up an ice water bath in a bowl larger than the bowl of egg mixture.

Place the bowl of egg mixture onto the pot of lightly simmering water and whisk vigorously. Cook until the temperature reaches 80°C on an instant read thermometer or until ribbons form. Remove the bowl from the heat and place in the ice water bath. Pour 50mL of boiling water into your bloomed gelatin and stir with a fork until dissolved.

Add cubed butter to the cooked egg mixture a piece at a time whisking it in until all combined. Keep whisking until the mixture is cool to the touch. Remove the bowl from the ice water bath and add the gelatin mixture. Whisk in well. Fold your whipped cream in, cover with cling film and refrigerate overnight.

For the Cream Scones

Preheat the oven to 425°F and place the rack on the second lowest shelf. Lightly grease or place a half sheet of parchment paper on a cookie sheet.

Sift the two flours, salt, sugar and baking powder into a large bowl. With a pastry blender or fingers, cut the butter into the flour until the mixture resembles coarse pebbles. In a separate small bowl, combine the whip cream, half and half, and egg. Whisk to blend well. Slowly pour this mixture into the flour mixture and mix until just blended. Lightly flour the table. Place a half sheet of parchment on top and lightly roll until the dough is ½ - ¾ of an inch thick.

Cut dough with 2 ½ inch round pastry cutter. Place on a parchment lined cookie pan. Brush the tops with whipping cream and lightly sprinkle with granulated sugar. Bake for approx. 15-16 minutes or until lightly browned. Remove from the oven and place the scones on a cooling rack.

To Assemble

Split the scones in half once room temperature Spoon or pipe approximately a golf ball sized portion of key lime mousse on the bottom portion of the scone. Place your assorted fruit on the mousse. Spoon approximately 30mL of whipping cream on top of the fruit and place the scone lid on top.

Gluten Free Grana Padano Soda Crackers with Fresh Thyme

Recipe Yield	3 dozen crackers
230mL	Cornstarch
160mL	Pinto bean flour
75mL	Tapioca flour
115mL	Red quinoa (or black)
5mL	Baking powder
5mL	Xanthan gum
75g	Unsalted butter, cold and cut into small cubes
200mL	Milk 2%
40g	Grana padano cheese, grated on a micro plane grater
25g	Medium cheddar, grated on a micro plane grater
30mL	Fresh thyme leaves, chopped coarse
As needed	Kosher salt

Add red quinoa to a medium sized stainless steel bowl. Sift cornstarch, pinto bean flour, tapioca flour, baking powder and xanthan gum into the bowl with the quinoa. Rub the butter into the sifted ingredients and quinoa until coarse crumbs form. Mix in grated cheeses and thyme.

Add milk and mix until just barely combined. The dough will seem too wet. Let it rest covered and refrigerated for a half hour. The xanthan gum will set the dough up to a firmer state.

Remove from the refrigerator and divide the dough up into 5 equal sections. Roll one section at a time between two generously pinto flour dusted sheets of parchment paper until 1/16th of an inch thick.

Carefully remove the top layer of parchment paper. Using a two-inch round pastry cutter ring, cut out the dough. Place the cut rings on a parchment paper lined half sheet pan (cookie pan) Repeat with remaining 3 sections of dough. Place on 2 new half sheet pans

Preheat your oven to 375°F and place your rack on the second lowest shelf. Lightly sprinkle each cut out circle with Kosher salt. Bake for approximately 20 minutes. Check for doneness at this time by biting into one of the crackers. If it is still chewy and not crisp, continue baking until they are.

Remove from oven once crisp and let air cool to room temperature. Place in an airtight container until needed.

Gluten Free Shortbread Cookies with Bakers Jam

Recipe Yield	18 cookies
110g	Navy bean flour
75g	Corn starch
80g	Icing sugar
40g	Potato starch
20g	Tapioca flour
170g	Unsalted butter, cubed and chilled
3mL	Almond extract
36mL	Bakers jam

Using the paddle attachment on a stand mixer, cream the butter and almond extract

Sift the dry ingredients together in a separate bowl.

Add the dry ingredients to the bowl of creamed butter and mix until smooth.

Form into balls and flatten slightly. Make an indent into the cookie either using a sanitized thumb, or the back of stick-end of a sanitized wooden spoon.

Place on a parchment paper lined sheet pan (cookie sheet) approximately 2 inches apart. Spoon approximately 2mL of the bakers jam into each indent.

Bake in a preheated 350°F oven on the second lowest shelf until set but not colored (approximately 20 minutes)

Let cool on a cooling rack until room temperature. Handle carefully once cooled.

Orange and Navy Bean Crème Brulee

Recipe Yield	Four - 4oz Ramekins
320mL	Whipping cream
5mL	Orange extract
4	Large egg yolks, room temp
60mL	Granulated sugar
240mL	Navy beans, cooked to very soft
50mL	Granulated sugar

Preheat your oven to 350°F, rack on the lowest shelf

If using raw navy beans; measure out 200mL of navy beans and soak in 1L of water overnight. The next day, discard the soaking water, rinse the beans and cook to very soft in 2L of simmering water (approximately 1 hour). Drain well and air cool.

Place the whipping cream in a pot over low heat just until bubbles form on the side of the pot. The cream should be hot but not boiling.

In a separate stainless steel bowl, combine the egg yolks, 60mL of sugar and orange extract. Using a wire whisk, whisk the egg mixture until pale and creamy (approximately 2 minutes) Put approximately 1L of water in a pot on to boil.

Temper the egg yolk mixture by pouring in approximately 45mL of your heated cream whisking vigorously. Keep adding the cream until well blended. Place the tempered egg/cream mixture, along with the cooked navy beans, into a blender. Puree on high speed for 3-4 minutes. Pour the puree into 4 inch round shallow ceramic ramekins. Place the filled ramekins in a 2 inch deep half-sized hotel pan (or baking dish). Take the pan of filled ramekins to the oven. Slowly pour or ladle boiling water into the pan until it reaches 1/3rd or half way up the sides of the ramekins. Take a sheet of tin foil large enough to cover the top of the pan and punch approximately 9 holes through the foil with a sharp knife to allow the steam to escape. Cover the pan loosely with the foil and carefully place the pan in the oven.

Bake for approximately 18 minutes and check. The centers should still be a bit wiggly. If not place back in the oven and check again after 2 minutes. Remove the pan from the oven carefully and let the ramekins sit in the water bath uncovered for 1 minute. Remove the ramekins from the water bath and let sit at room temperature for 10 minutes. Place in the refrigerator overnight (covered with cling film once cooled completely). Before serving, sprinkle no more than 15mL of sugar on top, covering the entire top of the set custards, and burn with a butane torch until the sugar is caramelized but not burnt. Wait one minute and serve immediately.

Almond and Chocolate Espresso Cake	
Recipe Yield	8 Portions – double layer cake
2 cups All purpose flour 2 cups Granulated sugar ¾ cup Cocoa powder 2 ½ tsp Baking powder 1 ½ tsp Baking soda 1 tsp Salt 1 cup Navy bean puree (supplied by Canada Prairie Garden Puree) - add enough water to be the consistency of light cream ½ cup Canola oil 2 large Eggs 3 tsp Almond extract 1 cup Boiling water 2 tsp Instant espresso	
For Decorating	
1 recipe 1 ½ cups or 3 sticks Unsalted butter, soft 1 cup Cocoa powder 5 cups Icing sugar ½ cup Milk 2% 3 tsp Almond extract 1 tsp Instant espresso 2 cups Sliced blanched almonds, toasted 1 cup Assorted fresh berries	Chocolate Espresso Icing
<p>Preheat your oven to 350°F and place racks on the second lowest shelf. Prepare two 9 inch round cake pans by cutting two circles of parchment paper to line the bottom of each pan and spray the sides of the pans and the parchment circles with pan release spray.</p> <p>For the Cake Sift the flour, sugar, cocoa powder, baking powder, baking soda and salt into either the bowl of a stand mixer, or a medium sized stainless steel bowl. If using a stand mixer use the whip attachment to thoroughly mix the dry ingredients on low speed.</p> <p>In a separate stainless steel bowl, whisk your eggs and then add your bean puree, canola oil and almond extract and whisk briefly to combine. While your machine is running on low-medium speed add your egg mixture to the dry ingredients and run the machine for 40 seconds. Stop the machine, lower the bowl and scrap the bottom of the bowl with a rubber spatula. Raise the bowl back up again.</p> <p>Add your boiling water to the instant espresso to dissolve. On low speed add the espresso liquid to the bowl. Once espresso has absorbed, turn the machine on high for 1 minute to incorporate air into the batter. Stop the machine and scrap the bowl one more time. Run on</p>	

high for 20 seconds more.

Divide the batter equally among the two prepared cake pans. Put the cakes into the oven and bake for approximately 35-40 minutes. Check after 30 minutes by inserting toothpick or wooden skewer into the center of the cake and remove. If it comes out clean then they are ready to remove from the oven. Let the cakes rest at room temperature in their pans on a wire cooling rack. Once to room temperature, cover the cakes (still in their pans) and refrigerate for 2 hours, or overnight. Remove the cakes from the pans and decorate with the chocolate espresso icing, toasted sliced blanched almonds, and fresh berries.

For Chocolate Espresso Icing

Heat the milk, almond extract and instant espresso in a small saucepot until hot (but not boiling) and the espresso is dissolved. Cool the liquid in a refrigerator.

In a stand mixer using the whip attachment, starting at a low speed, whip the butter with the cocoa powder until soft and creamy. In turns add one cup of the icing sugar with one tbsp. of milk mixture, and beat until incorporated. Repeat the above step until all the milk and sugar have been combined. Lower the bowl and scrape the bottom and sides with a rubber spatula. Raise the bowl up and turn the machine on high for 1 ½ minutes to whisk it fully.

If the icing appears to be too dry, whisk in a little milk one tbsp. at a time until it reaches the proper consistency. If the icing appears to be too wet, then add some icing sugar a tbsp. at a time to get to the right consistency.

Use either a baker's straight stainless steel spatula or a rubber spatula to decorate the cake.

Almond and Chocolate Espresso Cake (with Black Bean Flour)	
Recipe Yield	8 Portions – double layer cake
1½ cups ½ cup 2 cups ¾ cup 2 ½ tsp 1 ½ tsp 1 tsp 1 cup ½ cup 2 only 3 tsp 1 cup 2 tsp	All purpose flour Black bean flour Granulated sugar Cocoa powder Baking powder Baking soda Salt Milk 2% Canola oil Eggs large Almond extract Boiling water Instant espresso
For Decorating	
1 recipe	Chocolate Espresso Icing
1 ½ cups or 3 sticks	Unsalted butter, soft
1 cup	Cocoa powder
5 cups	Icing sugar
½ cup	Milk 2%
3 tsp	Almond extract
1 tsp	Instant espresso
2 cups	Sliced blanched almonds, toasted
1 cup	Assorted fresh berries
<p>Preheat your oven to 350°F and place racks on the second lowest shelf. Prepare two 9 inch round cake pans, by cutting two circles of parchment paper to line the bottom of each pan and spray the sides of the pans and the parchment circles with pan release spray.</p> <p>For the Cake Sift the two flours, sugar, cocoa powder, baking powder, baking soda and salt into either the bowl of a stand mixer, or a medium sized stainless steel bowl. If using a stand mixer use the whip attachment to thoroughly mix the dry ingredients on low speed.</p> <p>In a separate stainless steel bowl, whisk your eggs and then add your milk, canola oil and almond extract and whisk briefly to combine. While your machine is running on low-medium speed add your egg mixture to the dry ingredients and run the machine for 40 seconds. Stop the machine, lower the bowl and scrap the bottom of the bowl with a rubber spatula. Raise the bowl back up again.</p> <p>Add your boiling water to the instant espresso to dissolve. On low speed add the espresso liquid to the bowl. Once espresso has absorbed, turn the machine on high for 1 minute to incorporate air into the batter. Stop the machine and scrap the bowl one more time. Run on</p>	

high for 20 seconds more.

Divide the batter equally among the two prepared cake pans. Put the cakes into the oven and bake for approximately 35-40 minutes. Check after 30 minutes by inserting toothpick or wooden skewer into the center of the cake and remove. If it comes out clean, then they are ready to remove from the oven. Let the cakes rest at room temperature in their pans on a wire cooling rack. Once to room temperature, cover the cakes (still in their pans) and refrigerate for 2 hours, or overnight. Remove the cakes from the pans and decorate with the chocolate espresso icing, toasted sliced blanched almonds, and fresh berries.

For Chocolate Espresso Icing

Heat the milk, almond extract and instant espresso in a small saucepot until hot (but not boiling) and the espresso is dissolved. Cool the liquid in a refrigerator.

In a stand mixer using the whip attachment, starting at a low speed, whip the butter with the cocoa powder until soft and creamy. In turns add one cup of the icing sugar with one tbsp. of milk mixture and beat until incorporated. Repeat the above step until all the milk and sugar have been combined. Lower the bowl and scrape the bottom and sides with a rubber spatula. Raise the bowl up and turn the machine on high for 1 ½ minutes to whisk it fully.

If the icing appears to be too dry, whisk in a little milk one tbsp. at a time until it reaches the proper consistency. If the icing appears to be too wet, then add some icing sugar a tbsp. at a time to get to the right consistency.

Use either a baker's straight stainless steel spatula or a rubber spatula to decorate the cake.

Pinto Bean and Chia Seed Power Balls

Recipe Yield	20 (slightly smaller than golf ball size)
¾ cup	Sunflower seeds, hulled
¾ cup	Almonds sliced, blanched
1 cup	Rolled oats
1tbsp	Chia seeds
1 cup	Pinto bean puree (or cranberry bean)
1 cup	Pitted dates
½ cup	Dried cranberries
1tsp	Ground cinnamon
½ tsp	Ground ginger
1tbsp	Liquid honey

For the bean puree, soak one cup of dried pinto beans (or cranberry beans) in 1L of water. The next day discard the soaking water and replace with 2L of fresh water. Bring the water to a boil and turn down to a simmer. Simmer uncovered for 1 hour or until the beans are very tender. Drain, air cool and puree in a high speed blender. You may need to add approx. a half cup of water to aid in the pureeing process. Remove from blender, wash the blender cup and dry thoroughly.

In a high-speed blender pulse the sunflower seeds, almonds, rolled oats and chia seeds until coarsely chopped and blended. Remove the contents to a medium sized bowl for the time being.

Add pitted dates, cranberries, ginger, and cinnamon to the blender and pulse until almost pureed, but still a few chunks left. Remove the contents from the blender and add to the bowl of chopped seeds/nuts mixture.

Add bean puree and honey. Mix well using clean hands. Knead the mixture well.

Have a bowl of cold water. Dip your hands in the water and pull a piece off of the batter and roll them into a ball a bit smaller than the size of a golf ball. Lay on a cling film wrapped cookie sheet. Cover and refrigerate until needed.

You may want to omit the honey. The longer the balls sit refrigerated, the more the sweetness comes out of the dates and cranberries.