Meal-in-a-Bag "MIAB" Food Storage Instructions

Featuring: "Scotch Broth" / Bean Soup

Headline: *"A year's supply of food for a family of 4 for ~ $500."* (2023)

The main idea: The main idea is to have a year's supply of highly nutritious food, that is easy to pre-assemble, store, share, and prepare with many variations from the base recipe ... and is delicious. Many families have rice, beans, wheat, etc. in storage, but if/when it ever became necessary to live from it, it could be a significant challenge to cook or eat from it.

This "Meal-in-a Bag" food storage project and workshop pre-assembles meals that meet or exceed nutritional needs, is easy to assemble, makes a fun family project, and is a quick way to add a month, a few months, or a year's supply of food. Additionally, the base ingredients can be stored 'bulk-style' in buckets and packaged at time of use or years in the future. And – it is very kind to the pocket book!

These instructions offer an overview that you can use and improve on at home with your family. There are many book/video resources that will expand on this idea and offer many other ideas. Sources are provided to help you find materials and devices along with additional knowledge that will be helpful in this and similar preparation activities.

Note: This handout discusses the Bean Soup recipe. For other meals, adapt the ingredients, processes and variations to fit your need. (Hint: You can adapt "meal-in-a-jar" recipes for MIAB.) Additional recipes are available at www.ApproachingReady.com in the "Download Files" section.

The comments in this instruction page were prepared for a hands-on workshop. Adapt and interpret as needed.

Benefits:

- Inexpensive
- You probably already have many of the ingredient components in your existing food storage – or they are easy to acquire
- Easy to share with others
- Simple to prepare meal – "Meal-in-a-Bag" – all the basics plus any optional variations pre-assembled
- Delicious
- Many variations from the base, yielding many ways to vary the recipe to avoid food fatigue and offer variety
- Fun family or friend project with like-minded people
- Easy to package in self-contained packaging for long-term storage (meal-in-a-bag)
- Quick simply way to put together a meaningful supply of food – ready to go.

Bean Soup basic (base) recipe ingredients: You can add / substitute / combine any assortment of items you want!

- Red beans - small
- Chick Peas – garbanzo beans
- White or Navy beans
- Black beans
- Lentils
- Pearl Barley
- Rice
- Split Peas
- Bullion
- Salt
- Pepper

Variations and additions (optional at time of pre-packaging or time of preparation):

- Meat – fresh at time of preparation, or freeze dried for long-term food storage packaging
- Vegetables – fresh at time of preparation, or dehydrated / freeze dried for long-term food storage packaging
- Pasta – macaroni, shells, wheel pasta, etc.

Costs & Preparation: The cost per Bean Soup meal (the base recipe) is ~$1.50 per meal (2023). This equals about $500 for 365 bags/meals which would be one meal/bag per day for a year. Admittedly no one wants to eat bean soup every day for a year, but the point is that this is a years supply of food. Combining with different recipes will create variation and diminish food fatigue. For example, having seven different meals means you would need 52 bags of each of the 7 recipes/meals to have one different meal each day of the week (Rice Roni, Chili, etc.). Variations to the basic bean soup recipe includes adding vegetables, meat, and other bouillon flavors to create variation, and which can be added to the meal at time of preparation. The amendments would add cost if choosing to add them at time meal construction (dehydrated or freeze dried product), but can added at time of preparation. Additional costs for necessary bags, buckets, bins, and oxygen absorbers should be factored in and in this case are included in the $1.50 cost per bag/meal.

Note that when this bean soup meal is prepared with a few added vegetables and meat at time of preparation (hamburger, beef or chicken chunks depending on the flavor of bullion used), it creates approximately 6 quarts of food in a large stock pot. This is enough to feed 4-8 people, or would provide food for several meals for one or two people. In the latter case, it is reasonable that 180 bags could actually provide a year's supply of food, cutting the cost for a years supply for a couple to ~$250 +/-.

Packaging: These ingredients may be stored in bulk mixed together in 5-gallon buckets (and assembled or drawn upon at time of use), or pre-assembled into "Meal-in-a-Bag" packages as 'complete' individual meals ahead of time in vacuum sealed bags. They can also be vacuum sealed in Mason jars as a Meal-In-A-Jar. When storing them this way the canning lid would need to be vacuum sealed in place with an O2 absorber inside, and checked for seal integrity over time – and be kept safe from glass breakage while in storage.

If stored in bulk in large buckets, separate beans (which must be pre-soaked) from other quicker-cooking ingredients such as grains or freeze dried products if used. In other words, don't mix all dry ingredients together in one bucket or bag. In either a meal-in-a-bag or jar method, put individual groupings of ingredients in separate sandwich baggies (use folding top sandwich bags so oxygen can have access to the O2 absorber. Don't use a Ziplock bag). The beans are thus separate and can be easily presoaked prior to cooking.

Supplies: The following list of supplies will need to be obtained and stored for this and other MIAB recipes. For purposes of the MIAB workshop, these supplies will be provided and included in the cost of each bag. The objective of the workshop is to learn how to do this and then set up home-based activities to complete an assortment of this Bean Soup and other recipes to fill out a year or two of food supplies in ready-made meals.

The Hints/Tips and Source list below will identify the supplies and equipment needed for this and your home food storage projects involving readymade MIABs. For home production I recommend getting beans and grains in 25 lb. bags. However, 10 lb. bags can be used to get started. Note that 5 lbs. of each item is enough to create approximately 50 meals. You can scale it beyond that for additional meals (i.e. 25 lbs. = approx. 250 bags/meals, etc.).

- Beans/Grains: Acquire a 5 or 25 lb. bag of each of the main ingredient items in the Bean Soup recipe. Do not use pinto beans.
- Bouillon: Use shelf-stable powdered bouillon. 50 oz of dry powdered bouillon should be sufficient for 50 meals. Avoid bouillon cubes or other types of bouillon that contains higher amounts of fat – which will go rancid and of all ingredients in the recipe to have shorter shelf life. When assembling each meal, put the bouillon and spices in a separate sandwich bag with ends tied together so that at time of preparation 5, 10, 20 years in the future, the bouillon can be discarded and replaced if it has become bad (something you can't do if it is mixed together loosely with the other ingredients).
- Salt: Two or three pounds of salt should be sufficient for this project, and enough.
- Pepper: 20-40 oz of pepper is a good start to this project and beyond.
- Plastic Sealing Bag: This is a 'Food Saver' type bag with channels in the bag (that allows a vacuum sealer to remove air from the bag), or a chamber sealer bag (smooth on both sides). Note – you will NOT be sealing the MIABs with a vacuum sealer as you want to leave a small amount of air in the bag to prevent sharp food product edges like grains from puncturing the bag from the inside. Oxygen will be removed with an oxygen absorber.
- Sandwich Bags: Use folding sandwich bags – the kind that fold and tuck around a sandwich. Do not use Ziplock bags which seal the oxygen inside.
- Mylar Bags: You will want 5 gallon Mylar bags to place inside a bucket or storage bin, in which you place the sealed plastic MIABs.

- Oxygen Absorber: A 100 cc O2 absorber must be put inside each individual pint- or quart-sized MIAB. This is what removes the oxygen, not the 'air'. There may still be air inside the bag (nitrogen), but the oxygen will be removed.
- Vacuum Sealer: Either a 'Seal-a-Meal' type bag sealer machine or a chamber vacuum sealer is needed – to seal unused oxygen absorbers. Note that you are NOT using the machine to seal individual MIABs, as noted above. However the unused O2 absorbers must be stored in an air-tight container where the air has been evacuated, to be used up in future projects.
- Optional: You may add dehydrated or freeze-dried vegetables at time of meal assembly. Note that these will not have the same shelf life as the beans/grains in the meal, and may be better added or amended to the recipe at time of meal preparation from the garden or canned vegetables/meat product. Adding this at the time when MIAB are first assembled will require the use of a larger sealing bag (i.e. a quart sized bag).

Hints and Tips:

- Additional recipes for MIABs, along with other preparation-related information is available at www.ApproachingReady.com.
- Obtain bulk amounts of ingredients at restaurant supply stores in your community. These suppliers will have the full complement of beans and grains in one location. Example: Cash & Carry, Chef's Store, etc. Bean wholesalers such as www.columbiabean.com are another good source. WinCo grocery stores also have bulk food sections and product can be ordered in 25 lb bags. Most 'normal' grocery stores will not generally carry all of the needed beans and grains in the bean soup recipe, and when they do they will be in smaller size bags. This will require multiple stores and more expense with smaller sized bags of product. Note that Costco does not have the variety of individual ingredients called for, but they may have powdered bouillon and rice.
- Bullion: As noted above, only use powdered shelf-stable bouillon. Cubes are not a good choice as they have higher fat content which does not store long-term very well. Restaurant supply stores and WinCo grocery stores (bulk foods section) are a good source.
- Vacuum Seal Machine: Brands include Food Saver, Cabella, Vacmaster, etc. This removes air from bags or Mason jars (with an adaptor). Remember that "air" is different from "oxygen" and you still need oxygen absorber packets because not all air is removed, and the bag is semi-permeable. If you are doing food storage this machine is needed to preserve O2 absorbers, along with many other projects. They can also be sourced from thrift stores and yard sales. They are necessary equipment in food preservation and are a workhorse in any long-term food preparation endeavor. Note: for MIABs you DO NOT need to vacuum seal bag tight. In fact, a hair straightening flat-iron, or hand-held "hot jaws" sealer works extremely well to seal bags after hand-compressing most air out of bag.
- Vacuum Seal Bags: Pre-cut pint or quart-size bags are most efficient, and therefore recommended (i.e. not full rolls that have to be cut and sealed at one end before filling). You will need bags for this and many other uses, so you may want to order your own supply of vacuum seal bags. If you have a Chamber Vacuum sealing machine you can use chamber bags (smooth on both sides) for MIABs, But you cannot use them in a 'food-saver' type vacuum sealer (which requires channeled bags to allow air to be sucked out. For bean soup MIABs, pint-size bags work well. If you add freeze dried vegetables, or for other recipes that require more room, quart-size bags will be used.
- Oxygen Absorbers: Rule: ALWAYS USE O2 ABSORBERS! You will need one oxygen absorber packet per vacuum sealed bag. 100cc size is ideal for pint size bags.
- Mylar bags: Protect against oxygen, light, and moisture. For long-term storage, don't trust plastic vacuum seal bags for long-term storage. They are still semi-permeable over the years. Place a 5-gallon Mylar bag inside a 5-gallon bucket (Home Depot) or a storage bin with tight lid, and fill it with finished meal bags. O2 absorbers are not needed in mylar bags or buckets.
- Plastic bins or buckets: Plastic bins/buckets protect against rodents and aid with transporting and storage. Be careful storing in large plastic bins due to weight and portability. 5-gallon buckets will store about 15-25 meals in a bag, and a half-sized black bin with yellow lid (Costco) will have about 60+ bags inside two 5 gallon mylar bags. Extend storage shelf life by storing it in cool location. For 5 gallon buckets, I prefer orange Home Depot buckets and lids (Lowes hardware buckets have weak lids and can break with weight when stacked). When stacking 5-gallon buckets, place a board (or two 1x2's) laid across bucket lids between vertically stacked buckets to cause the bucket walls to support the weight of vertically stacked buckets, instead of the lid tops.
- Sandwich bags for Pre-Packaging assembly: Do not use Ziplock bag or baggies. Use folding sandwich bags that allow their ends to be tied. This separates ingredients by cooking needs, as well as by suspected shelf life.

Sources & Resources:

(Note: All links active at time of this writing (2023).

- **MIAB Recipes:** Available for download at www.ApproachingReady.com in the handouts section. Meal-in-a-jar recipes can also be adapted. (Note: Site also contains other preparation-related information.)
- **Bulk Foods:** WinCo Foods, Chef's Store, Cash and Carry, Costco, other restaurant supply stores, etc.
- **Vegetables - Dehydrated / Freeze Dried:**
    - #10 Cans: Commercial Vendors: Honeyville; Thrive; Augason Farms; Emergency Essentials; Walmart; Costco;
    - Church of Jesus Christ of Latter-day Saints: Online Store (e.g. Carrots)
    - Dehydrates Inc: www.Dehydratesinc.com (800-983-4443) has "Deluxe Carrot Mix" – 40 lb carton of dehydrated Mixed veggie blend.
    - Home Dehydrating or Freeze Drying – personal use… [If processing it yourself, make sure to dehydrate or freeze dry completely. Store protected from moisture or humidity while stored; sealed, O2 absorber, silica desiccant bag, etc.]
        - Freeze Dryer: Harvest Right www.harvestright.com Hint: Talk to an owner first; visit/join Facebook group…
        - Dehydrator: Excalibur brand- from Amazon or other retailers.
- **Vacuum Sealers:** Get a model that has an "accessory port" that allows use of a mason jar lid sealer.
    - Cabelas ; Vacmaster; Food Saver; Sorbent Systems; Costco; Amazon;
    - Mason Jar Sealer: Foodsaver
- **Portable Heat Sealer / Impulse Sealers:**
    - Vacuum Sealers Unlimited; Sorbent Systems; 6" Portable Hand Operated Heat Sealer
    - Flat irons – like used for hair; search Amazon. Also find them at Goodwill & thrift stores
- **Vacuum Seal Bags:** Google for sources, or see links below
    - Sorbent Systems; Amazon.com
    - Pint bags (6x10") http://shop.vacuumsealersunlimited.com/ULTRA-Vacuum-Sealer-Bags_c279.htm
    - Quart bags (8x12")
        - http://shop.vacuumsealersunlimited.com/ULTRA-Vacuum-Sealer-Bags_c279.htm
    - Gallon Bags – (you'll want some eventually for other general purposes)- available at above online outlets.
- **Mylar Bags:** Google for other sources. Most commonly used are one-gallon size, and 5-gallon (for buckets of bulk dry food).
    - Discount Mylar Bags; Sorbent Systems; Mylarbagsdirect; TopMylar;
    - LDS Online Store: (This is a thick 7 mil bag which is very good! LDS only has one-gallon size.)
- **Desiccant Packets:** (Use silica gel desiccant packets packaged in Tyvek® which are FDA approved food grade)
    - Sorbent Systems;
- **O2 absorbers:** LDS Online Store (store.lds.com); Discount Mylar Bags; Sorbent Systems; Mylarbagsdirect; Google search
- **Sandwich Bags:** Folding top style: local grocery store or Amazon:
- **Books:**
    - "The Ultimate Dehydrator Cookbook" by Tammy Gangloff,
    - "The Meals in a Jar Handbook", by Stephanie Petersen
    - "Dinner Is in The Jar", by Kathy Clark:
    - "It's in The Bag" by Michelle Snow:
    - "The Prepper's Cookbook" by Tess Pennington:
    - "Meals In A Jar" by Julie Languille

Video Tutorials: (note: Search for "Meal in a Jar", "Dehydrate food", etc. on YouTube): Examples:

- Dehydrate 2 Store: https://www.youtube.com/results?search_query=dehydrate2store
- Meals in a Jar: https://youtu.be/lQ8--eiudHw?list=PLWoOHAKAkb_06yUR1vkRfoCJNhJftalNq

Websites: (Note: There are many).

- Self-Reliant School: http://selfreliantschool.com/introduction-meals-in-jars-chili-jar/
- The Survival Mom: http://thesurvivalmom.com/