

GRAINPRO® GRAINSAFE™ BAG-1.0
INSTRUCTION MANUAL
MA4010RLR1009-6



GrainPro Inc.
4410A Connecticut Avenue. NW, #163, Washington, DC 20008
Tel: +1 202-921-6700
Email: sales@grainpro.com

GrainPro® Philippines, Inc.
Lot 46 Efficiency Avenue, Subic Bay Gateway Park I, Subic Bay Freeport Zone 2222 Philippines
Phone: +63 47 252 7884 Fax: +63 47 252 7885 Website: www.grainpro.com
Email: salesasia@grainpro.com

GrainPro Kenya
Space Apartments, GF Shio A2 Maimahui Rd. Nairobi West, Kenya
Tel: +254 737 177 767
Fax: +254 710 933 717
Email: sales@grainpro.com

GrainPro Mexico, S de RL de CV
Ctoo. Garona No. 903, Sección Tres, Col. Amberes, 37237,
León, Gto. Mexico
Mobile: +52 1 (477) 392 0851
Email: guillermo@grainpro.com

GrainPro Costa Rica S.R.L.
Residencial Valle del Sol, Calle Lajas, Casa #27 Alto de las Palomas,
Santa Ana, San José, Costa Rica
Tel: +506 2282 9129
Email: infogpcr@grainpro.com

GrainPro India Post-Harvest Technology Pvt. Ltd.
Office Number 18A109, WeWork Berger Tower 18th Floor,
C-001/A2, Sector 16-B, Noida, INDIA – 201301
Landline: +91 120 515 0017
Customer Service : +91 960 292 0202
Email: praveen.gupta@grainpro.com

GrainPro® Inc., 1401 K Street NW, Suite 502, Washington D.C. 20005 USA
Copyright 2019 GrainPro®, Inc.

TABLE OF CONTENTS

1. INTRODUCTION	4
2. CHECKLIST.....	5
3. COMPONENTS	6
4. SPECIFICATIONS.....	6
5. WARNINGS.....	7
6. RECOMMENDED MAXIMUM MOISTURE CONTENT FOR SAFE STORAGE.....	7
7. INSTALLATION.....	7
Site selection	8
Termite Control.....	8
Rodent Control.....	9
Loading	10
Zipping	11
Installation of rodent guard (RG)	12
Outdoor installation	13
Monitoring the oxygen level	13
Dismantling.....	14
8. Preventing Condensation.....	14
Why does condensation occur	14
Moisture content (MC) requirement for safe storage	14
9. Maintenance and Care.....	15
Regular Examination	15
Repairing punctures and other damages	15
Recommended weekly monitoring	15
Cleaning.....	16
Safekeeping	16
Prohibited item not allowed to ship.....	16
Recycling.....	16
10. FREQUENTLY ASKED QUESTIONS AND ANSWERS.....	16
11. WARRANTY CLAUSE.....	18

1. INTRODUCTION

The GrainPro® GrainSafe Bag™ - 1.0 is a portable bagged storage for grain and seed, normally set-up at ground levels such as on concrete pavement or on a pallet. The use of a platform is also an option. It safely stores any dry agricultural commodities like maize, wheat, paddy, coffee, and others at or below safe moisture content. It works under the principle of hermeticity (airtight). It is made from a specially designed food grade, Ultra-Hermetic material, and zipper system. Insects' natural breathing process depletes the available oxygen and replaces it with carbon dioxide. This conversion typically occurs within 10 days of storage. The heavier the infestation, the more rapid is the kill. The liner of the GrainSafe Bag™ is a UV-resistant, waterproof, low permeability and is resistant to rodent penetration when properly installed.

1.1. FEATURES:

- 1.1.1. The quality of commodities is preserved without the use of chemicals.
- 1.1.2. It maintains its effectiveness under rainfall and wind conditions, even monsoons.
- 1.1.3. It is designed to be used inside or outdoor provided that the shade or cover is installed.
- 1.1.4. It can be set-up on a platform with anti-rodent protection to prevent rodent attack.
- 1.1.5. It is designed to store commodities up to one ton capacity.
- 1.1.6. A green technology for organic product storage (certified safe for organic grain storage-secondary packaging)

1.2. PRODUCT GUARANTEE:

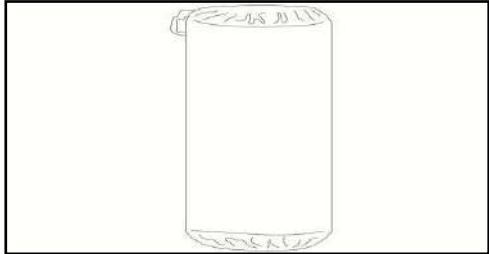
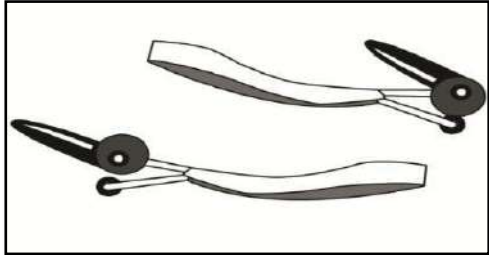
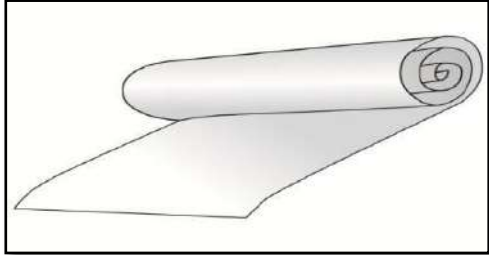
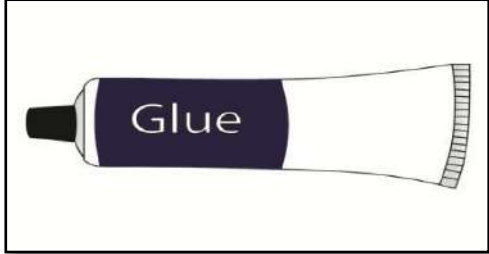
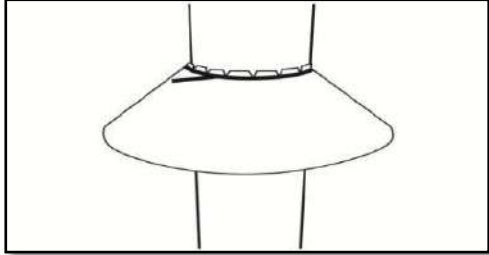
- 1.2.1. In accordance with the terms and conditions herewith, GrainPro® Inc., guarantees the quality of this product per its written warranty provided it is used according to the instructions in this manual.
- 1.2.2. Please read and understand the manual thoroughly before using the GS Bag-1.0™.

1.3. COMMENTS, COMPLAINTS, AND/OR CLARIFICATIONS:

- 1.3.1. Please contact customercare@grainpro.com.
- 1.3.2. All queries will be answered by our team of post-harvest solutions experts.

2. CHECKLIST

Please inspect your GrainPro® GS Bag-1.0™ to ensure that the package includes the following items:

PART NAME	DESCRIPTION	IMAGE
2.1. CARRY BAG	2.1.1. GrainSafe bag. 2.1.2. Small parts. 2.1.3. Instruction manual.	
2.2. ZIPPER PULL	2.2.1. For zipper sealing. Two (2) pieces (left and right)	
2.3. PATCHING MATERIAL	2.3.1. White-colored PVC roll for patching the holes and damaged. One (1) piece (30cm x 1.5m)	
2.4. PETACKS BOND GLUE	2.4.1. For patching PVC materials. One (1) tube	
2.5. RODENT GUARD	2.5.1. For platform post to prevent rodent access when storing the empty GS Bag-1.0™. Four (4) pieces per pack	

2.6. INSTRUCTION MANUAL

- 2.6.1. Installation instructions.
- 2.6.2. Maintenance instructions.
- 2.6.3. Frequently asked questions and answers.
- 2.6.4. Warranty clause.



3. COMPONENTS



4. SPECIFICATIONS

PARAMETER	STANDARD
Material	Flexible Polyvinyl Chloride (PVC)
Thickness, mm (inch)	0.83 (0.033) ±7%
Color	White
Material weight, g/m ²	1,050
Oxygen Transmission Rate (OTR), cm ³ /m ³ /day@ 0.1MPa	< 500

Water Vapor Transmission Rate (WVTR), g/m ³ /day	< 9
Product Life, years	15
Warranty, years	5
Sealing Mechanism	PVC Hermetic Zipper
Capacity, kg(lbs.) Based on wheat	1000 (2205)
Dimensions, (A x B x C), cm (inch)	120 x 120 x 200(47 x47 x 79)
Product Weight, kg (lbs)	12.5 (28)
Packed Dimensions, cm. (inch)	100 x 40 x 10 (39 x 16 x 4)
Packed volume, m ³ (ft ³)	0.04 (1.4)

5. WARNING!

- 5.1 Do not put fresh produce or commodities with high moisture content inside the GS Bag 1.0™.
- 5.2 Do not wear shoes with spikes that might cause damage to the GS Bag 1.0™.
- 5.3 Do not directly install the GS Bag 1.0™ without clearing away debris and other foreign materials.
- 5.4 Do not smoke during installation, as cigarette butts might burn and damage the GS Bag 1.0™.
- 5.5 Do not put the GS Bag 1.0™ on top of a wooden pallet or equivalent to prevent puncture by sharp edges and nails.
- 5.6 Do not keep the GS Bag 1.0™ unclean. Refer to 7.4 for proper safekeeping.
- 5.7 Do not allow loading vehicles (i.e., forklift/trucks) to run over the GS Bag 1.0™ as this will cause damage to the PVC material.

6. RECOMMENDED MAXIMUM MOISTURE CONTENT FOR SAFE STORAGE (WET BASIS)

Barley	12%
Black Pepper	10%
Cashew nuts	8%
Chia seeds	7%
Chickpeas	12%
Cocoa beans	7%
Coffee beans	12%
Cotton seed	10%
Cowpea	12%
Maize	13.5%
Millet	12%
Mung bean	12%
Oats	12%
Paddy	13.5%
Paddy, rice bran	11%
Peanuts, shelled	7%
Red Chili Pepper	8-10%
Rice, milled	12%
Rye	12%
Sesame	5.5%
Sorghum	12%
Soybean	12%
Sunflower	7%
Wheat	13%

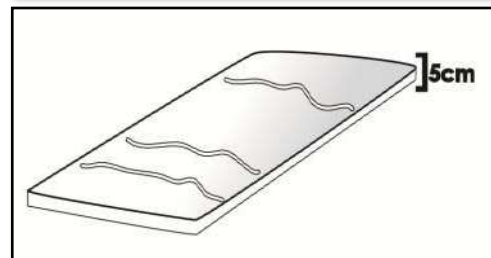
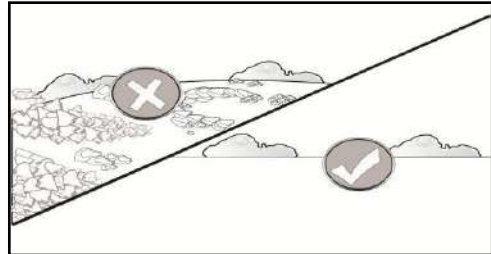
You may also contact us through customer care@grainpro.com for more information or for commodities that are not on the list.

7. SITE SELECTION

5.8 In selecting a site, look for a concrete or asphalt platform.

- a. A smooth area away from standing or running water.
- b. Prepare the site by clearing away all sharp objects (stones, broken glasses, nails, etc.) that may puncture the GS Bag-1.0™.
- c. An inspection path around the perimeter (at least 75cm).

If ground will be used as a flooring, put a layer (5cm) of fine sand (or any equivalent) on top of the soil as a ground foundation to prevent rats and termites from damaging the bottom of the GS Bag-1.0™.



7.2. TERMITE CONTROL

Overview of Termite

- a. The two most common types of termites are "dry wood" and "ground," or subterranean termites.
- b. Termites need moisture to survive and will die if exposed to sunlight or open air for more than a few minutes. Their tunnels protect them from these elements.



- c. High moisture areas like basements and crawl spaces are very attractive to termites and can serve as starting points for an infestation.

Description (Subterranean Termite)

- a. Food and moisture:
 - Need a great deal of moisture from soil or damp wood. Cellulose (from wood) is part of their diet.
- b. Habitat:
 - Usually, they live in the soil but can be above ground if enough moisture is present. They have large colonies.
- c. Evidence of activity:
 - Protective mud tubes ascending from the ground to the structure or protruding from walls, etc.

- d. Prevention:
 - Treat the soil before construction using termiticide.
 - For more information search for Chemical Soil Treatment.
 - A termite bait station monitoring system to monitor termite activity and bait placements after detection.
 - Regular inspections.
- e. Control Measures:
 - With current activity use a baiting program or a termite barrier treatment.

Termite Treatments

- a. The traditional method of controlling subterranean termites is to apply a liquid pesticide, known as a termiticide, to the soil. This chemical treatment relied on the application of a chemical barrier around and beneath the structure designed to block all possible routes of termite entry. Any termites attempting to penetrate through the treated soil were either killed or repelled.
- b. There are several different insecticides currently used by pest control operators for termite soil treatments. All of them are safe and effective when used per label directions. The insecticides remain effective in the soil for approximately 5 to 10 years.
- c. Effective termite treatments require a great volume of termiticide.

7.3. RODENT CONTROL

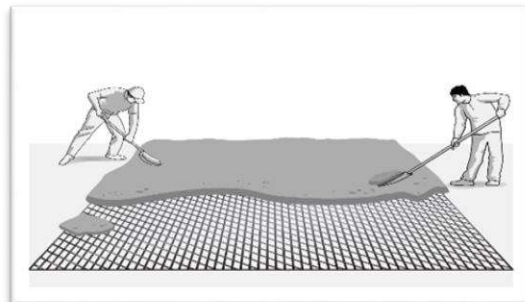
Prevention:

- a. Eliminate unnecessary folds on the sidewalls of the GS Bag 1.0™ when installed.
- b. Remove all potential sources of food from the premises, such as scattered grains, etc.
- c. Remove all trash and debris around the GS Bag 1.0™ as it may use a shelter of rodents.
- d. Keep trash cans closed with tightly fitted lids and should be away from the GS Bag 1.0™.
- e. Trim trees, bushes, and vines at least 1.5 meters away as it may be used by rodents to crawl on top of the GS Bag 1.0™.

Procedure in installing wire mesh: (Optional)

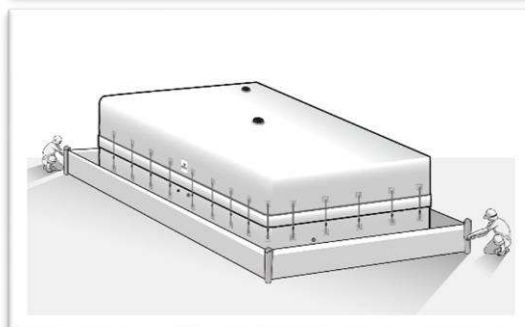
For ground installations and for areas with high risk of rodents' attack, it is highly recommended to use wire mesh not larger than ¼ inch to exclude mice.

- a. To install the wire mesh, prepare the selected site by clearing away all sharp objects (stones, broken glass, nails, etc.) that may puncture the GS Bag 1.0™. (Refer to 7.1.2)
- b. Cut the wire mesh at least 50 centimeters wider than the bottom of the GS Bag 1.0™.
- c. Spread the wire mesh before the fine sand and equivalent as a recommended protection of the GS Bag 1.0™.
- d. Then, follow the standard procedure on how to install GS Bag 1.0™.



Procedure for installing GI sheet: (Optional)

- a. Install the GI sheet 1 meter away from the sidewall of the GS Bag 1.0™.
- b. Make sure that the GI sheet has wooden posts or any equivalent that can withstand the wind.



9/18
Requirement for GI sheet:

- a. Length should be 1 meter away from the sidewall of the GS Bag 1.0.
- b. Height is at least 80 centimeters.
- c. Gauge or thickness is at least 16.

8. INSTALLATION

8.1. LOADING

8.1.1. Check the moisture content (MC) of the commodity to ensure commodity will be

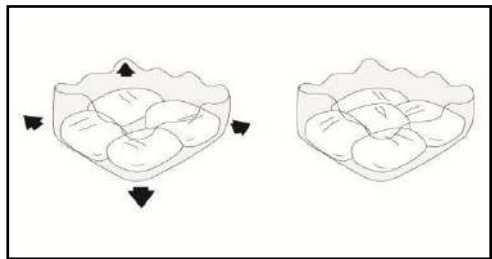


8.1.2. Unfold the bag and lay it out on the prepared site. Place the empty bag on the



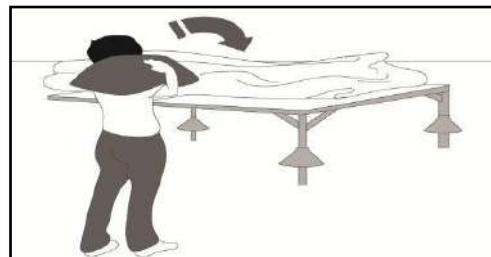
8.1.3 Loading procedure (requires at least two people):

- a. One person fills the GS Bag-1.0™.
- b. The second person keeps the bag open and maintains proper arrangement of sacks.
- c. Load the bagged commodities through the open zipper while stretching the bag to prevent crumpling.



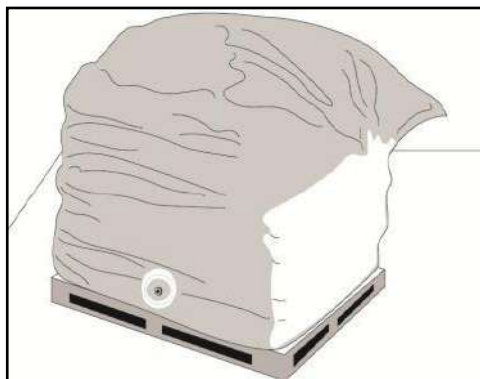
8.1.4. Platform positioning (if necessary):

- a. Wood, bamboo, bricks, or concrete can be used to construct the platform. Ensure that the platform is sturdy and stable enough to take the load of the GS Bag-1.0 with the commodity. Added protection such as mat, old sacks or cardboard is also recommended



8.1.5. Required capacity:

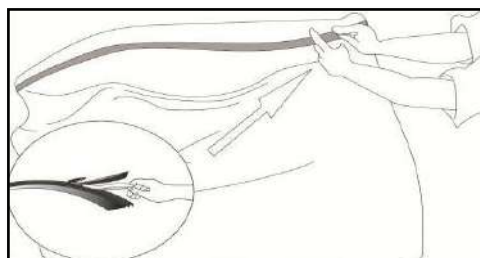
- a. Keep the sacks stable by loading the succeeding layers in a crisscrossmanner.
- b. Continue piling until the desired GS Bag-1.0 height is reached.



8.2. ZIPPING

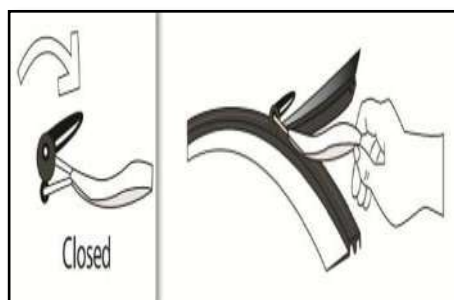
8.2.1. Preparing to zip:

- a. After the GS Bag-1.0 has been filled to its recommended capacity, position the hermetic zipper flat on top of the stack.
- b. Make sure that the zipper tracks are free from dirt so that the zipping can be done properly.

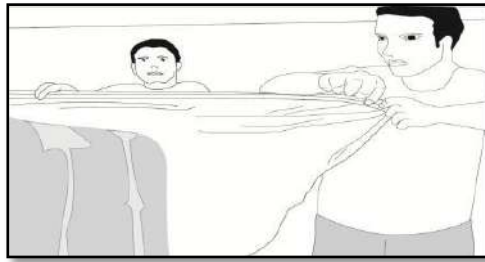


8.2.2. Using the zipper pull:

- a. Starting from the end of the zipper, place the smaller black running wheel inside the liner facing upward to lock the bottom liner zipper track.
- b. Place the larger wheel outside the liner facing upward to lock the top liner zipper track.
- c. Rotate the zipper pull's plastic handle 180° toward its pulling loop, forcing the tongues and grooves of the two zipper tracks together.
- d. Slide the zipper pull to the other entire length of the zipper track.

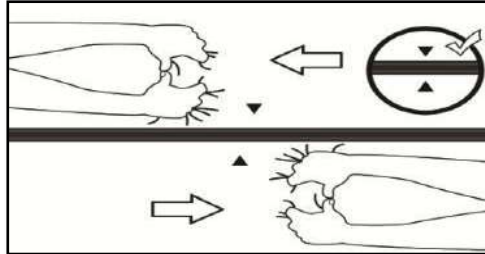


- e. To make zipping easier, two persons are required. One will do the zipping and the other will hold the other end steadily making both sections of the zipper in a straight line to avoid zagging.



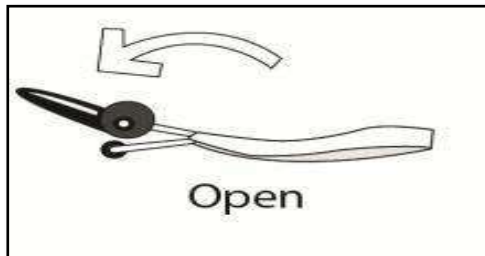
8.2.3. Completing the zipper process:

- a. Align the marks (“triangles”) printed on both tracks located above and below zipper.
- b. If a pair does not match, slide back the zipper by pulling the top and bottom part in an opposite direction until the marks meet.



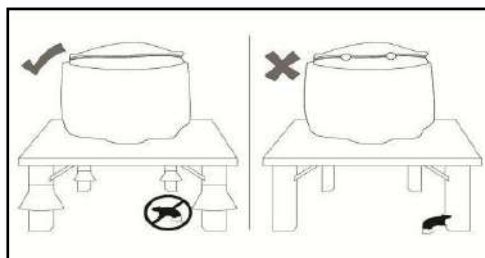
8.2.4. Removing the zipper pull:

- c. When you have zipped the entire length of the zipper track, take the zipper pull off the track by rotating the plastic handle 180° away from the zipper pull loop.
- d. Close the last few centimeters of the zipper track by manually pressing to latch the zipper’s tongue and groove.



8.2.5. Ensuring a complete hermetic closure:

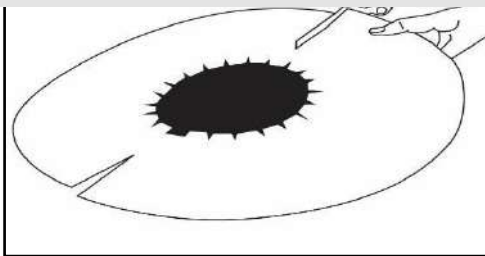
- e. Make sure to close the zipper correctly to maintain its gas-tightness.



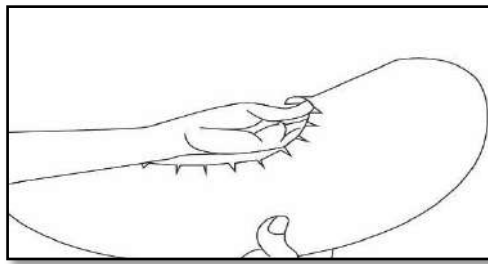
8.3. INSTALLATION OF RODENT GUARD (RG)

8.3.1. For protection against rodent attacks (one set contains 4 pieces):

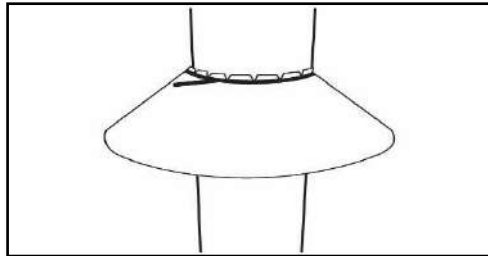
- a) One set can be installed on any platform legs with leg perimeter (round or square) of 22 cm (9") to 44 cm (17").
- b) If the diameter of the leg is smaller, the rodent guard can be cut to fit the legs.



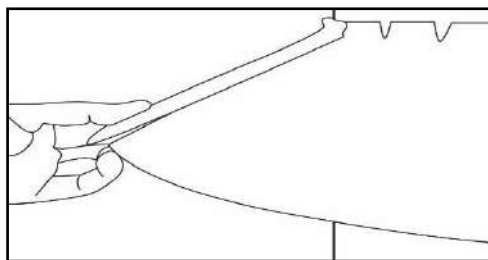
8.3.2. Fold the rodent guard's teeth upwards against the sides of the leg to keep it from slipping.



8.3.3. Make sure to overlap the sides at least one inch.



8.3.4. Lock the overlap using staple wire, cable wire, or any fastener.



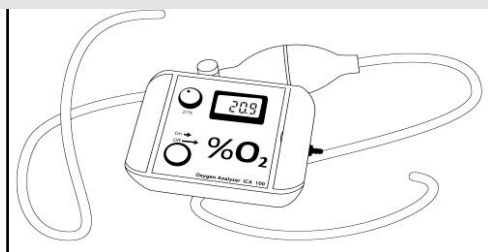
8.4. OUTDOOR INSTALLATION

8.4.1. The GS Bag-1.0™ must be protected from the direct sunlight by installing the shade/cover such as a roof cone from any available insulating material (straw, reflective material, matting) that are commonly used to protect the traditional local storage facilities.

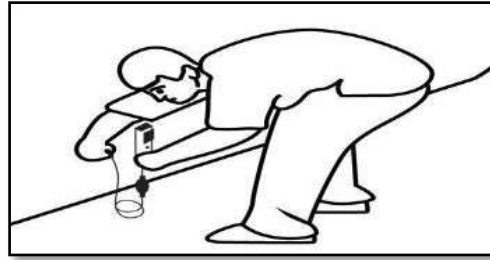


8.5. MONITORING THE OXYGEN LEVEL

8.5.1. Use of an oxygen analyzer:
a. During the first 15 days of installation, oxygen level must be checked daily using the oxygen analyzer.

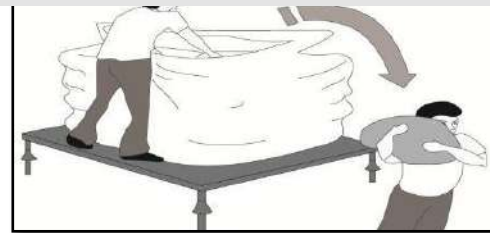


- b. Succeeding monitoring should be done twice a week. Normally, oxygen levels should drop 1-2% per day to a level less than 3% (though lower levels have been observed as well). Oxygen levels go up by a few percent but must not exceed 7%. Except for coffee beans and seeds, in this situation, the sealing is probably compromised, and the commodity may not be adequately protected.
- c. When the oxygen does not drop for 3 to 7 days or increase in carbon dioxide is not observed, check for pinholes or damage in the Cocoon sections.



8.6. DISMANTLING

- 8.6.1. The commodity will only be unloaded at the end of the storage.



9. PREVENTING CONDENSATION

9.1. WHY DOES CONDENSATION OCCUR?

- 9.1.2. Condensation is caused by temperature changes i.e., hot weather by day and cool at night or sudden rains in a hot sunny day. When air collides with a cool surface at dew point temperature the vapor in the air condenses on the surface. Air movement inside the GS Bag-1.0™ follow the natural forces i.e., in convection currents hot air rise and cool air sinks (except for the phenomenon called inversion). Hence, when warm air inside the GS Bag-1.0™ rises and hits the cool GS Bag-1.0™ top cover at dew point temperature, condensation occurs.
- 9.1.3. Therefore, avoiding trapped warm air inside the GS Bag-1.0™ can prevent condensation at the top layer. This is the role of the roof cone (shade/cover). It prevents heating of air inside the GS Bag-1.0™ by repelling solar radiation.

9.2. MOISTURE CONTENT (MC) REQUIREMENT FOR SAFE STORAGE

- 9.2.1. Commodities should be dried before storage to at least 12% MC for sorghum, 9-10% millet, 12-14% for paddy, and maize, and 13% for wheat.
- 9.2.2. When the commodity is properly dried, there is virtually no “available water” that the microorganisms can use for growth and development.
- 9.2.3. This condition can be maintained by avoiding ambient air (with variable moisture content) to be in contact with the dried product using the hermetic storage technology.

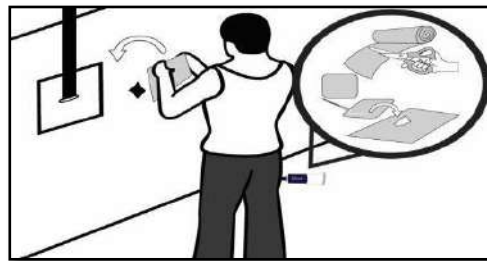
10. MAINTENANCE AND CARE

10.1. REGULAR EXAMINATION

- 10.1.1. Check the zipper track for any small opening/s and push the opened track section by hand.
- 10.1.2. Check GS Bag-1.0™ for punctures or cuts (do not forget to check near the bottom, particularly for rodent damage). If there are any, repair them with the patch kit as described below.
- 10.1.3. Avoid low overhanging structure or tree branches that would allow rodents to jump on top of the GS BAG-1.0™.
- 10.1.4. During the rainy season, the upper surface of the GS BAG-1.0™. should be regularly inspected for water accumulation and damages that would permit water to seep into the GS BAG-1.0™. The content is not adequately protected if the GS BAG-1.0™ is not completely sealed.
- 10.1.5. Carbon dioxide level does not increase:
 - a. Check for a possible opening of zippers, and holes/punctures/cuts.
 - b. Seal/repair it immediately.
 - c. Monitor the carbon dioxide level using the analyzer through the gas sampling port.

10.2. REPAIRING PUNCTURES AND OTHER DAMAGES

- 10.2.1. Use the patching material and adhesive found in the repair kit:
 - a. Clean the area to be patched with a damp cloth or organic solvent.
 - b. Apply a glue (150-200g) on both surface with a brush or equivalent.
 - c. Let it dry for 5-10 minutes and stick and apply sufficient pressure.



10.2.2. Protective maintenance

- a. Check the patched PVC occasionally and replace or re-patch if necessary.

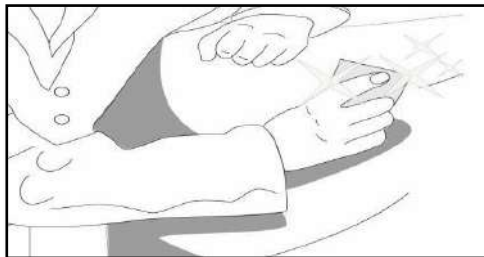
10.3. RECOMMENDED WEEKLY MONITORING

- 10.3.1. Check whether the hermetic zipper has not opened anywhere along the length. If openings are observed, press the tracks together by hand.
- 10.3.2. Inspect the liner and make sure that there are no punctures or tears (or rodent damages). If there are any, repair them immediately.
- 10.3.3. Check the top of the GS BAG-1.0™ to make sure that there is no standing water (especially during the rainy season). If there is any, it must be removed by hand or tools that do not risk puncturing the liner.
- 10.3.4. Make sure that there is no low overhanging structure or tree branch, which would allow rodents to jump on top of the GS BAG-1.0™.

10.4. CLEANING

10.4.1.If necessary, use soap and water.

10.4.2.Dry under the sun.



10.5. SAFEKEEPING

10.5.1.The empty GS Bag-1.0™ should be stored away from heat or direct sunlight and away from rodents.

10.5.2.Do not place heavy objects on top of the stored GS Bag-1.0™ to prevent damage or deformity.

10.6. PROHIBITED ITEM NOT ALLOWED TO SHIP

10.6.1.The Glue (for patching PVC materials) is not allowed to be shipped in air cargo. This item will be removed from the package.

10.6.2.The client is advised to purchase the local equivalent.

10.7. RECYCLING

GrainPro GS Bag 1.0™ is made of PVC.

10.7.1. The products can be delivered to the nearest recycling facilities in the area.

10.7.2. Plastic #3 – PVC (Vinyl) can be recycled into paneling, flooring, speed bumps, decks, or roadway gutters.

11. FREQUENTLY ASKED QUESTIONS AND ANSWERS

11.1. DO I NEED TO PUMP THE AIR OUT OF THE GS BAG-1.0™ OR MODIFY THE AIR INSIDE THE GS BAG-1.0™, FOR EXAMPLE WITH CARBON DIOXIDE?

- No, you do not need to pump out or change the atmosphere in any way. The insects own natural metabolic functions use up all the available oxygen and replace it with carbon dioxide. Atmospheres modified with carbon dioxide or vacuum can enhance the quality of stored product, and reduce the insect kill time, but are not required to eliminate insect infestations.

11.2. IF THE STORED COMMODITY IS ALREADY INSECT INFESTED, DO I NEED TO FUMIGATE IT OR OTHERWISE KILL THE INFESTATION BEFORE STORING IT?

- No, you do not need to fumigate or kill the infesting pests before storing the food. The insects will die naturally in a matter of days. The greater the infestation the faster the kill.

11.3. IS THERE ANYTHING YOU DO NOT RECOMMEND THE GS BAG-1.0™ FOR?

- Yes, the GS Bag-1.0™ is not recommended for storing fresh fruits, vegetables, or medicines.

- 11.4. CAN YOU ADD OR TAKE OUT ITEMS ONCE THE GS BAG-1.0™ IS FILLED AND CLOSED?
- Yes, you may add or take out items. If the added items are infested, the insects will naturally modify the internal atmosphere again and die off.
- 11.5. DO I NEED TO FILL THE GS BAG-1.0™ ENTIRELY FOR IT TO WORK?
- GS Bag-1.0™ is designed to work effectively at any given load. Load your GS Bag-1.0™ to its optimum dimensions to ensure full protection from insect infestations.
- 11.6. SHOULD THE GS BAG-1.0™ BE ONLY ERECTED INDOORS?
- No. GS BAG-1.0™ is designed for outdoor use also under all types of climatic conditions.
- 11.7. WILL A PUNCTURE NEGATE THE BENEFITS OF HERMETICITY OF THE GS BAG-1.0™?
- No, although a hole/tear will allow oxygen to seep into the GS Bag-1.0™ and will cultivate live insects around the puncture/hole. Tight stacking of the stored commodity tends to prevent spreading of infestation inside the GS Bag-1.0™. We recommend immediate repair of all punctures or tears.
- 11.8. HOW DRY MUST THE GRAIN BE TO STORE IT SAFELY IN THE GS BAG-1.0™?
- The GS BAG-1.0™ works best with grains at or below critical moisture content.
- 11.9. CAN THE RODENTS CHEW RIGHT THROUGH THE PVC MATERIAL WHEN THE GS BAG-1.0™ IS ERECTED?
- Yes, but only if the sides are not taut enough. Rodents can only gnaw on the smooth, slippery surface of a GS Bag-1.0™ if the sides are not properly stretched or rodents drops down from any object hanging over the GS Bag-1.0™ such as a low-hanging branch of a tree. In areas with high rodent activity, we recommend that a GS Bag-1.0™ be protected using anti-rodent barriers.
- 11.10. CAN AGRICULTURAL COMMODITIES OTHER THAN GRAIN BE STORED IN A GS BAG-1.0™?
- Yes, most dry agricultural commodities such as seeds, pulses, beans, coffee, cocoa, some dried fruits, and even dried chilies can be safely stored. When in doubt, ask GrainPro.

12. WARRANTY CLAUSE

GrainPro® hereby warrants that product sold by it to Buyer shall be free of defects in workmanship and materials, for a period as follows, starting from the date of shipment (B/L): Five years for the GrainSafe Bag-1.0™ (GS Bag-1.0™) liner and zipper. One year for all other parts.

The warranty liability is limited to replacement of defective products during the warranty period at GrainPro's plant in accordance with the provisions specifically and expressly set forth herein.

The Buyer will pay for Products which need to be replaced under warranty, a percentage of the full list price according to the ratio between the period, which has passed until replacement, and the full warranty period.

The Buyer shall bear shipping costs for shipment of defective Products to GrainPro, and GrainPro shall bear shipping costs of returning good Products to Buyer.

The Warranty does not cover the cost of any services, work, or materials required for the replacement of defective Products with good Products at the site of installation.

GrainPro shall have no obligation under the warranty to replace defective Products or parts thereof if the defect is a result of any of the following: normal wear and tear; damages occurring after delivery, accidents, acts of God, or catastrophes, fault or negligence, or improper storage installation, maintenance of the Products.

Replacement costs and shipping charges for Products found not to be under warranty as specified above would be paid in full by the Buyer before new/refurbished Products are shipped to.

Notwithstanding the above, if the Products include main parts or sub-assemblies purchased by GrainPro from other vendors ("Additional Equipment"), then the period and terms of warranty for Additional Equipment are limited to the period and terms offered by the vendors of such equipment.

The Buyer agrees that the warranty liabilities of GrainPro shall be and are limited to the express foregoing terms: THE EXPRESS WARRANTIES AND OBLIGATIONS SET FORTH ABOVE, ARE AND SHALL BE IN LIEU OF ALL OTHER WARRANTIES AND OBLIGATIONS OF GRAINPRO, EXPRESSED OR IMPLIED. EXCEPT TO THE EXTENT HEREIN PROVIDED, GRAINPRO DOES NOT MAKE AND SHALL NOT BE DEEMED TO MAKE ANY WARRANTY WHATSOEVER TO THE, TO ANY END USER OR TO ANY OTHER PERSON OR PARTY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR USE OR PURPOSE. GRAINPRO SHALL NOT BE LIABLE FOR ANY LOSS OF USE, SALES OR PROFIT OR FOR ANY INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES CAUSED BY OR SUFFERED AS A RESULT OF THE SALE OR USE OF THE PRODUCTS.

For further information and clarifications, visit our website at www.grainpro.com; email our Customer Support team: customercare@grainpro.com or call: +63 47 252 7884.