



#### **VALLIS COMMODITIES LIMITED**

## PHOTOGRAPHIC REPORT

# SUGAR BEET PULP PELLETS (SBPP)

#### MANUFACTURING, INSPECTION AND TESTING PROCESSES

#### 1. INTRODUCTION

- 1.1 Vallis has now completed its first inspection, collateral control and monitoring contract for Sugar Beat Pulp Pellets (SBPP) in Egypt. A calorific animal feed, SBPP has seen a healthy growth in Egyptian and Global export markets. The price of SBPP is approximately \$161 per tonne.
- 1.2 Vallis provided its services for the production of 22,000 tonnes of SBPP to a major Egyptian exporter. Operations ran from 3rd to 31st March 2017 with 24 hour supervision by trained and experienced Vallis staff, utilising state-of-the-art lab testing at the point of production in several factories across Lower Egypt.
- 1.3 SBPP is used globally as an animal feed. A by-product from processing sugar beet into sugar, the high fibre, calorific animal feed has seen its international trade grow at a healthy annual average of 5.7%, with total world exports reaching 2.15 million tonnes in 2015.
- 1.4 Egyptian SBPP production and exports have seen significant growth in recent years. Exports grew from 108,000 tonnes in 2008 to 460,000 tonnes in 2015. Egypt replaced the USA as the world's second largest exporter of SBPP in 2014; only Russia exports more. Egypt exports mainly to the EU (predominantly Italy and Spain), South Korea and Morocco.

### 2. SBPP PRODUCTION AND EXPORT

- 2.1 This short photographic report describes the 5 processes of SBPP production from manufacturing through inspection and sampling, release and finally export. Importantly, it includes a view of the services Vallis provides to support this growing commodity market.
- 2.2 Manufacturing. (Photos 1 to 15)
  - 2.2.1 Sugar beet loaded trucks queue for receipt into factory conveyor system.
  - 2.2.2 Sugar beets are cleaned, washed, and dried.
  - 2.2.3 SBPP are produced, having had the moisture in the pulp reduced to the appropriate levels.
- 2.3 Inspection and Sampling. (Photos 17 to 19 and 21 to 28)
  - 2.3.1 Vallis staff conduct a cleanliness inspection for each truck that is used to collect the SBPP.
  - 2.3.2 Vallis staff monitor the inspection and testing of the SBPP at the factory and in the lab.
  - 2.3.3 Vallis staff collect samples from multiple areas of SBPP pile to build a comprehensive sample.
  - 2.3.4 Samples are collected and retained by Vallis.



- 2.3.5 SBPP that fails inspection or sampling is removed from trucks and rejected.
- 2.4 **Release**. (Photos 20 and 29 to 31)
  - 2.4.1 SBPP is released directly into the trucks from the storage facility
  - 2.4.2 After passing inspection, trucks pass over a weighbridge under Vallis staff supervision.
  - 2.4.3 General Release Note is issued to the driver to be received by Vallis staff at the Port weighbridge.
- 2.5 **Export**. Photos (30 to 40)
  - 2.5.1 Trucks transit to the port for export where Vallis oversees receipt of SBPP on arrival at the port.
  - 2.5.2 Vallis manages all stock movements.
  - 2.5.3 Vallis coordinates with the client, the transport company and the Master of the Vessel to implement loading plan. Vallis then surveys, inspects and fumigates the vessel on completion of loading.

# **Table of Photos:**

1. Sugar beet loaded trucks queue for receipt into factory conveyor system	3
2. Truck release bay and conveyor mouth during cleaning	3
3. Sugar beet clearing and waste yard with conveyor from truck bay	3
4. First tumbler to separate earth from the beets and channel beets to the storage pile or into factory.	3
5. The storage pile.	3
6. Beets travel up the conveyor into a second tumbler and then into the first of 3 washing drums	3
7. Inside washing drum	
8. Impurities removed from washing phase	4
9. Second washing drum.	4
10. Clean Sugar Beets enter factory for sugar extraction	4
11. Sugar is produced inside the factory.	4
12. Sugar beet pulp is transported through pipes from the sugar factory for final stages of processing.	4
13. Driers reduce the moisture in pulp to appropriate levels.	5
14. Vallis Egypt Country Manager, Jack Aylward and 4 Heat Compressors which turn the pulp into pe	llets 5
15. Sugar beet pulp pellets (SBPP) in their final form	5
16. Release pile of SBPP.	5
17. Example of burnt and rejected SBPP, resulting from overheating in the Heat Compressors	5
18. Vallis staff inspect each truck for contaminants, previous cargo remnants or hidden weights	5
19. Vallis staff inspect each truck for contaminants, previous cargo remnants or hidden weights	6
20. SBPP release directly into trucks.	6
21. Vallis staff collect samples from multiple areas of SBPP pile to build a comprehensive sample	6
22. Vallis staff with samples at on-site testing lab.	6
23. SBPP scale, moisture and protein checker.	6
24. Titration Apparatus for protein measurement	6
25. High accuracy lab scales	7
26. Moisture detector.	7
27. Vallis SBPP sample sealed and held for retention	
28. Scales, Moisture and Protein measurement device	
29. 24hr operations inside the weight bridge	
30. Vallis General Release Note in English and local language	7
31. Trucks enter weighbridges under Vallis supervision and inspection	8
32. Vallis staff running 24hr operations at the port warehousing for receipt of SBPP from the factory	8
33. Vallis weight sheet recording the daily releases of trucks	8
34. Vallis staff oversee unloading of trucks from the factory at the port warehouses	8
355. Trucks unload under Vallis supervision.	
36. Vallis survey, inspect and fumigate the vessel at the port	8
37. Vallis ensure proper segregation of bulk SBPP in the warehouse	9
38 Vallis oversee release of SRPP from the warehouse to the vessel	a





1. Sugar beet loaded trucks queue for receipt into factory conveyor system.



2. Truck release bay and conveyor mouth during cleaning.



3. Sugar beet clearing and waste yard with conveyor from truck bay.



4. First tumbler to separate earth from the beets and channel beets to the storage pile or into factory.



5. The storage pile.



6. Beets travel up the conveyor into a second tumbler and then into the first of 3 washing drums.





7. Inside washing drum.



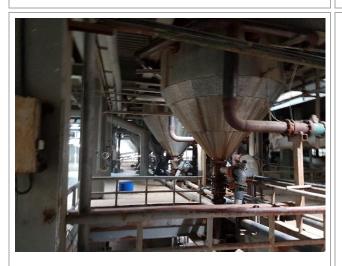
8. Impurities removed from washing phase.



9. Second washing drum.



10. Clean Sugar Beets enter factory for sugar extraction.



11. Sugar is produced inside the factory.



12. Sugar beet pulp is transported through pipes from the sugar factory for final stages of processing.





13. Driers reduce the moisture in pulp to appropriate levels.



14. Vallis Egypt Country Manager, Jack Aylward and 4 Heat Compressors which turn the pulp into pellets.



15. Sugar beet pulp pellets (SBPP) in their final form



16. Release pile of SBPP.



17. Example of burnt and rejected SBPP, resulting from overheating in the Heat Compressors.



18. Vallis staff inspect each truck for contaminants, previous cargo remnants or hidden weights.

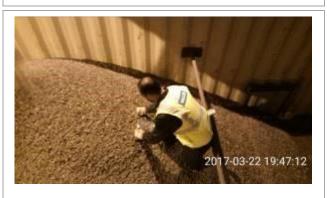




19. Vallis staff inspect each truck for contaminants, previous cargo remnants or hidden weights.



20. SBPP release directly into trucks.



21. Vallis staff collect samples from multiple areas of SBPP pile to build a comprehensive sample.



22. Vallis staff with samples at on-site testing lab.



23. SBPP scale, moisture and protein checker.



24. Titration Apparatus for protein measurement.





25. High accuracy lab scales.



26. Moisture detector.



27. Vallis SBPP sample sealed and held for retention.



28. Scales, Moisture and Protein measurement device.



29. 24hr operations inside the weight bridge.



30. Vallis General Release Note in English and local language.





31. Trucks enter weighbridges under Vallis supervision and inspection.



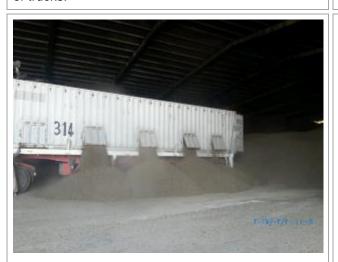
32. Vallis staff running 24hr operations at the port warehousing for receipt of SBPP from the factory.



33. Vallis weight sheet recording the daily releases of trucks.



34. Vallis staff oversee unloading of trucks from the factory at the port warehouses.



355. Trucks unload under Vallis supervision.



36. Vallis survey, inspect and fumigate the vessel at the port.





37. Vallis ensure proper segregation of bulk SBPP in the warehouse.



38. Vallis oversee release of SBPP from the warehouse to the vessel.



39. Vallis staff on-hand, ensuring proper loading of the vessel into correct holds.



40. Vallis test and retain samples through-out the process.