Africa’s first RESEARCH AND TRAINING FEED MILL
The following list has been compiled to provide potential sponsors of equipment for the AFMA/UP Research and Training Feed Mill with a list of the available “PODs” which are available for donation to the mill, along with a basic scope of supply for these equipment items:

<table>
<thead>
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<th>POD NO.</th>
<th>POD EQUIPMENT NAME</th>
<th>SCOPE OF SUPPLY</th>
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</table>
| 1       | Roller Mill Equipment | • Bulk Bag Loading and Conveyance Equipment to the Grinding Buffer Bin  
• ±12m³ Buffer Bin Capacity. Complete with Level Control for Fill on Bin  
• ±6-10Ton/hr grinding capacity with load control on the feed to the mill unload system from the post-grinding hopper to the bulk bagging bin system and to a bulk bag point  
• Bulk Bagging Auger  
• 1.5Ton Platform Bagging Scale  
• Scale Interface to Plant Control System |
| 2       | Bulk Bag Filling System | • Bulk Bag Loading and Conveyance Equipment to the Bagging Buffer Bin  
• ±27m³ Buffer Bin Capacity @0.5m³/Ton Density. Complete with Level Control for Fill on Bin.  
• Bulk Bagging Auger  
• 1.5Ton Platform Bagging Scale  
• Scale Interface to Plant Control System |
| 3       | Hammer Mill Equipment | • Bulk Bag Loading and Conveyance Equipment to the Grinding Buffer Bin  
• ±12m³ Buffer Bin Capacity @0.5m³/Ton Density. Complete with Level Control for Fill on Bin.  
• ±6-10Ton/hr grinding capacity with load control on the feed to the mill unload system from the post-grinding hopper to the bulk bagging bin system and to a bulk bag point (min. 6TPH through 3.2mmØ screen)  
• Bulk Bagging Auger  
• 1.5Ton Platform Bagging Scale  
• Scale Interface to Plant Control System |
| 4       | Batch Mixer 1 Equipment | • Loading interface and conveyance with batching system to mixing tower  
• Bulk Bag Loading Equipment to the Mixer Holding Bin  
• Bulk Bag Loading Interface on Mixer Holding Bin  
• 1Ton Twin Shaft Paddle Mixer (min. ±2,000L mixing volume)  
• Mixer Drop out hopper with Bulk Bagging and batch unload equipment from the mixing system to the 2x final product outload silos (outside of building)  
• Mixer to be mounted on load cells, for use in batch liquid coating application |
| 5       | Batch Mixer 2 Equipment | • Loading system (intake point for bulk bags) and conveyance from floor level to supply product to POD  
• Bulk Bag Loading Equipment to the Mixer Holding Bin  
• Bulk Bag Loading Interface on Mixer Holding Bin  
• 1Ton Single Shaft Mixer (min. ±2,000L mixing volume)  
• Mixer Drop out hopper with Bulk Bagging |
| 6       | Pelleting System 1 | • Loading system (intake point for bulk bags) and conveyance from floor level to supply product to POD.  
• Loading interface and conveyance with mixing system to pelleting line  
• Bulk Bag Loading Equipment to the Pellet Buffer Bin  
• Bulk Bag Loading Interface on Pellet Buffer Bin  
• Min. ±1.5Ton Buffer Bin Capacity @0.5m³/Ton Density. Complete with Level Control for Fill on Bin.  
• Pellet press feeder screw  
• Single conditioner on pellet press  
• ±1-1.5Ton/hr capacity pellet press  
• Pellet cooling system  
• Pellet unload system from cooler to bulk bagging point |
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| 7     | Pelleting System 2                    | • Bulk Bag Loading Equipment to the Pellet Buffer Bin  
• Bulk Bag Loading Interface on Pellet Buffer Bin  
• Min. ±1.5Ton Buffer Bin Capacity @0.5m³/Ton Density. Complete with Level Control for Fill on Bin.  
• Pellet press feeder screw  
• Single conditioner on pellet press  
• ±3-3.5Ton/hr capacity pellet press  
• Pellet cooling system  
• Pellet unload system from cooler to bulk bagging point  
• Conveyance from the pelleting POD to the Sieving and Crumbling POD (Optional)                                                                                                     |
| 8     | Pellet Sifting and Crumbler System    | • To be integrated into the pelleting system  
• ±6-8Ton/hr capacity  
• Pellet unload system from cooler to bulk bagging point  
• Conveyance from the pelleting POD to the Final Product Bagging POD (Optional)                                                                                                         |
| 9     | Mash Hygienization System             | • ±3-5Ton/hr capacity  
• Further spec. to be done by potential supplier                                                                                                                                                                                                                                                                                         |
| 10    | Product Extrusion System              | • ±0.5-1Ton/hr capacity  
• Extruded product cooling system  
• Further spec. to be done by potential supplier                                                                                                                                                                                                                                                                                         |
| 11    | Final Product Bagging System          | • Loading system (intake point for bulk bags) and conveyance from floor level to supply product to POD  
• Bulk Bag Loading Equipment to the Bagging Buffer Bin  
• Bulk Bag Loading Interface on Bagging Buffer Bin  
• ±3-4Ton Bagging Bin Capacity @0.5m³/Ton Density. Complete with Level Control for Fill on Bin.  
• ±6-10Ton/hr Bagging system filling 25-50kg bags  
• Pallet wrapping system  
• Bag stitching and conveyor system                                                                                                                                                                                                                                                                                                |

** All process equipment “POD” sponsors to provide their own equipment MCCs and mechanical and electrical installation of equipment supplier. Control and Automation of equipment supplied including the interface of the equipment with the main control infrastructure for the plant is also part of the sponsor’s supply. Each “POD” should accommodate the required aspiration and air filtering, to adhere to relevant operational standards.
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| 12      | Weighbridge                                         | • 24mLx3mW  
• 60Ton capacity                                                                                                                                                                                        |
| 13      | Pre-Cleaner                                         | • To clean maize at intake, not in design at this stage, but can be incorporated should a sponsor be found                                                                                                     |
| 14      | Transfer Scale                                      | • To be used for the measurement of materials transferred to and from storage in the factory                                                                                                                    |
| 15      | Raw Material Silos                                  | • 3-5x 12ft Silos (60° Hopper) – ±70m³ capacity per silo                                                                                                                                                     |
| 16      | Final Product Storage Silos                         | • 2x 12ft Silos (60° Hopper) – ±48m³ capacity per silo                                                                                                                                                       |
| 17      | Macro Batching System                               | • Conventional batching bin setup  
• Hopper design batching system  
• Add-by-hand batching points  
• ±1 Ton Batching Capacity                                                                                                                                                                                   |
| 18      | Pre-Pack Preparation Station                        | • Pre-pack Dosing System  
• ±60kg Platform Scale  
(Sponsor Item)  
• Stand for System  
• Control Panel for Equipment in System  
• Commissioning and Startup of Equipment in control infrastructure  
• Integration interface with plant main software infrastructure                                                                                                                                            |
| 19      | Oil Dosing System to Batch Mixer                    | • Bulk oil storage tank  
• Oil dosing day tank  
• Oil dosing system plumbing installation  
• Oil dosing pump skid with flow metering  
• Dosing interface to mixer                                                                                                                                                                                    |
| 20      | Liquid (Water) Dosing System to Batch Mixer - MOS   | • Liquid dosing day tank  
• Liquid dosing system plumbing installation  
• Liquid dosing pump skid with flow metering  
• Dosing interface to mixer                                                                                                                                                                                    |
| 21      | Continuous Mixer for Molasses Incorporation         | • Bulk molasses storage tank  
• Molasses dosing day tank  
• Molasses dosing system plumbing installation  
• Molasses dosing pump skid with flow metering  
• Dosing interface to mixer                                                                                                                                                                                    |
| 22      | Steam Boiler                                        | • Min. 300kg/h of steam required (to accommodate 1x pellet press)  
• Fuel storage tank  
• Piping and steam line installation                                                                                                                                                                           |
| 23      | Air Compressor                                      | • Screw compressor is preferred  
• Min. 7.5kW motor  
• Air drier, filters and air storage cylinder  
• Final spec. depending on sponsor                                                                                                                                                                              |
| 24      | Spot Filters                                         | • Local Spot filtering requirement as per equipment demand (specific POD dependent)                                                                                                                                                            |
| 25      | 1Ton Platform Scale (Min. 3x)                       | • 1.2mDx1.2mW Surface  
• 1.5Ton Capacity  
• Scale Indicator Scale Interface to Control System                                                                                                                                                       |
| 26      | 100kg Platform Scale                                | • 0.8mDx0.6mW Surface  
• 100kg Capacity  
• Scale Indicator & Scale Interface to Control System                                                                                                                                                         |
| 27      | Fully Equipped Laboratory (Wet Chem and Analytical Machinery) |                                                                                                                                                                                                                         |
| 28      | a) Training Centre (3 x 30 student), rooms with dividers which can open up to form a 90 student room  
b) IT and AV Equipment per Training Room (3 rooms) – Data Projector, Screen, Sound and Cabling |                                                                                                                                                                                                                         |
| 29      | Cash Sponsors and Investors                         |                                                                                                                                                                                                                         |

* The content of this document is subject to change, based on the change in requirements as the project progresses and sponsors for various equipment items are sourced.