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Impact mass flow sensor for monitoring peanut harvest yields

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(54) **IMPACT MASS FLOW SENSOR FOR MONITORING PEANUT HARVEST YIELDS**

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(57) **ABSTRACT**

Yield monitoring systems for harvesting machines and methods that can provide yield monitoring of crops are described. Machines include those that pneumatically convey crop through the machine such as peanut harvesting machines. The yield monitoring system includes a force sensor that can be located in conjunction with a duct of the harvesting machine such that impact of the crop materials on an impact plate within the duct will be registered by the force sensor. This registration can be used to determine a mass flow rate for the crop, which can be correlated to yield of the crop. The systems can include additional components such as optical monitors, moisture sensors, and pressure sensors.

24 Claims, 15 Drawing Sheets