

Report on a water alarm for livestock watering systems

After much searching we were able to find an inexpensive alarm that will text and/or call a farmer to notify them when a waterer or water trough is out of water. The alarm unit is called a Mobeye Waterguard, model CM2300FS, with a float sensor. The unit, with shipping costs \$230. Essentially, the alarm is a small box containing two replaceable batteries and a SIM card. To this box attaches a wired sensor connected to a small float. The float is hinged, and can be rigged to attach in nearly any waterer or trough. When the water level is sufficient, the hinge is closed, when the water level drops, the hinge opens and triggers the alarm, which then sends a text and/or phone call. The system can send messages to up to five phones, and many different aspects of the alarm can be easily customized, such as: time elapsed after water level drops before alarm is sent (in the event that you want to give a waterer time to refill), number of times to send an alarm, frequency of the alarm, notification that water level has returned to normal, and notification that battery level is low. The SIM card text system uses a GSM network, which is the cell network used by all carriers in the world except for Verizon and Sprint. Therefore we had to buy a service plan through AT&T giving unlimited texts for a flat \$100 fee per year. Cell service in Augusta County through AT&T is poor, and we had challenges with various locations not being in reception. However, we were able to verify the unit works on the last farm that we set up the solar system in, which was in Weyers Cave, VA. It is expected that Verizon and Sprint will adopt GSM capability within the next 2 years, which will dramatically increase the range of this alarm system in Augusta County. Next year we will continue testing with the unit and experiment with fitting the alarm to the various waterer types used in the county.