

## **COMPLETE SALT CONVEYOR SYSTEM**

### **Butler County, Ohio**

#### **Contact:**

**Scott Bressler**  
1921 Fairgrove Avenue  
Hamilton, OH 45011  
(513) 785-4128  
bresslers@bceo.org

#### **Problem Statement:**

We needed to come up with a way to stack salt into our dome quickly so we didn't hold up the drivers bringing the salt to us. Drivers are paid by the load delivered and will haul to other agencies first if they can get more loads off. Whatever we came up with needed to be efficient and inexpensive.

#### **Discussion of Solution:**

We knew we most likely needed some type of belt elevator, either one with its own power source or one powered by existing equipment. We didn't want to spend a lot of money for the conveyor and hopper. We looked at similar systems used statewide, which cost \$40,000 to \$80,000, and decided to purchase an agricultural belt elevator powered by the PTO from our mowing tractor. The hydraulics from the tractor also powered the conveyor system, which needed to be raised or lowered. The next concern was the issue of getting the salt from the delivery truck onto the elevator quickly. We decided to use a retired V-box which we mounted on a running gear from an agricultural wagon. The V-box conveyor is powered by the hydraulics from the same mowing tractor used to power the conveyor. The tractor is also used to move both pieces of equipment into place. With the hopper we were able to have the delivery trucks simply dump the salt next to the hopper where we would then load the hopper.

#### **Labor, Equipment, & Materials Used:**

We used a welder, torch, and grinder. Miscellaneous steel, hardware and paint, an agricultural conveyor, a v-box, used running gear, and a hydraulic motor were also used. We also used one week of in-house labor.

#### **Cost:**

Agricultural Conveyor: \$14,000

V-Box: \$1,000

Used Running Gear: \$800

Hydraulic Motor: \$250  
Miscellaneous Steel & Hardware: \$400  
Paint: \$100  
Labor: \$3560  
Equipment: \$100  
Total Cost: \$20,210

### **Savings & Benefits:**

Like most agencies, we needed to find a way to keep the salt deliveries coming in and a safe way to stack salt in the dome. This all needed to be done in the most efficient and least expensive way possible. We were able to do this for the above-mentioned cost, when it could have cost us upwards of \$80,000 for a commercial salt conveyor. The benefits we have noticed are that the drivers who bring salt to us like the fact that they can pull in the yard, dump, and leave quickly. The loader operator does not have to stack salt in the dome, which takes time and is unsafe. Most of all, we can stack the dome full, using every square foot of the dome's capacity.

