

SCRIBE NOTES
OALP Class 15, Seminar 8
“Family Relationships and Community Concerns”
July 14 - 15, 2011

Thursday, July 14, 2011
Vicki Jo Stephens

No scribe notes submitted.

Friday, July 15, 2011
Jessica Wilcox

Rodney Sutterfield chaired this session and Jessica Wilcox served as scribe.

We started the day off at the USDA-ARS Hydraulic Lab under the dam of Lake Carl Blackwell west of Stillwater.

Dr. S.L. Hunt and Dr. Gregory Hansen gave us a tour and quick overview of the history of the Hydraulic part of the USDA's research and how it affects each of us.

There are three categories of USDA Scientists:

Category 1: Is the lead researcher; they have to publish or perish! They are panel-reviewed at a certain time in their career by a panel in Washington, D.C. There is no local control of this process at all.

Category 3: Supports research of the Category 1s. They make sure the research projects are carried out to the satisfaction of their supervisors.

Hydraulic means the study of fluids. In this case, it is the study of water and its effects on agricultural landscapes.

ARS, Agricultural Research Service, is the principal in-house research agency of the USDA. ARS employs 8000 people globally.

- 2000 Category 1 scientists
- 1200 projects
- 100 locations
- Four locations overseas
 - In Oklahoma, there are four locations:
 - El Reno - Range
 - Woodward - Range
 - Stillwater - Hydraulic Unit, Wheat and Peanut genetics, etc.
 - Lane - Specialty Crops

The need for better water conservation practices became evident in the “dirty 30s”. The original office for water control/conservation was established in the 1930s in South Carolina. In the 1940s they moved it to Oklahoma to be closer to the epicenter of the problems.

Flooding on the smaller tributaries in Oklahoma, like Caney Creek, really got the program rolling by underlining the need for better upstream control of runoff water, so it does not hit the main branch all at once causing catastrophic flooding and endangering thousands of acres of farmland and towns.

Cloud Creek near Cordell, Oklahoma, was the first completed flood control dams in the United States. It was completed in 1948.

In 1963, Sandstone Creek in Roger Mills County was the first completed watershed project in the United States.

In 1953, the Hydraulic Lab was established as part of the Soil Conservation Service (now NRCS). The new agency operated under Congressional laws PL-566 and PL-534. Oklahoma is one of three major “hotspots” in the U.S. that

has a large concentration of these projects. The other areas are Mississippi, eastern Nebraska, and western Iowa. These last two areas are due to the Loess soil type. Loess soils are typically characterized by wind-blown particles left over from retreating glaciers after the last ice age. All three areas pose big problems due to downstream contaminants.

There are many designs that they implement that needed to be tweaked and changed a bit to meet unforeseen requirements and problems. One of these is “Trash Racks” - a good idea to keep the drainages free and opened, but it actually caused worse plug-ups. To alleviate the problem they redesigned the racks to use baffles to slow the water drainage and therefore keep debris off the discharge pipes.

The NRCS is the primary “customer” of the Hydraulic Lab in Stillwater, not just Oklahoma, but nationwide and even globally.

The flood control programs peaked in the 1960s, with the structures built then having 50-year life expectancies. This means that many of these structures need major rehabilitation. Landowners who have these structures on their land technically “own” them, but due to the cost it is often not economical on a rancher’s/farmer’s budget to rehabilitate. The main causes of failure are aging concrete, sedimentation which decreases the water holding capacity, soil types, and maybe most importantly, shifting demographics (once they were in pastures in low populated areas, now they are in high population areas).

Head cuts or gullies are a type of erosion that usually show up when a dam is “overtopped” (meaning water flows over the dam) and the downstream side of the dam erodes back through the dam until large swaths of soil are gone and the dam fails.

Internal failure is due to soil dispersion of Sodic (salty or soapy, extremely alkaline) soils where the soil particles actually repel each other. Therefore, there is no cohesiveness to the soil and the particles easily wash away.

Sandy soils will “collapse” within hours while clay soils will last days before complete failure.

RCC Spillways (Roller Compacted Concrete Spillways) use dry concrete that is packed by a roller in a stair-step fashion to reinforce earth spillways.

The Corps of Engineers has been doing research on ways to “plug” levy breeches using large plastic bags that contain 70% water and 30% air. These bags are very expensive, costing around \$200,000 - 300,000. A large project being researched now is a partnership with a university in Mississippi using acoustics and other noninvasive techniques to “see” into the dams and levees. This project is funded by the Department of Homeland Security. The goal is to see what soils are present, where they are located, and how much of these soils are present. They also need to see the bulk densities of these layers.

The water the Hydraulic Lab uses for research/demonstration projects is from the lake itself. They can get 25 cubic feet per second using gravity-flow only. There are no pumping costs. Lake height is the ultimate control of flow rate.

Communication and Stress Management- Dr. Jason White and Ms. Ulm

Stress examples: muscle tension, changes in mood and actions, and change in attitude. Stress usually shows up when there is a challenge to meet inner or outer demands.

Indications of Stress:

1. Physical
2. Emotional
3. Cognitive
4. Behavioral

Stress sources: employees, being overworked, spouses, children, families, health, financial stresses, and situations out of our control.

Some stress is actually good. It keeps us on our toes and helps us operate at maximum efficiency. Not enough stress will result in a lack of motivation; too much stress can cause anxiety and disorganization.

Stress can have a negative impact on communication. Positive communication can help manage stress.

Book Recommendation: “Why Marriages Succeed or Fail”- John Gottman

Four negative kinds of communication:

1. Criticism - global, accusatory, non-specific, felt as an attack to receiver, complaining - specific, non-accusatory, not the same as criticism
2. Contempt - mocking, hostile humor, resentment, bitterness
3. Defensiveness - excuses, not owning up to what is correct
4. Stonewalling - leaving or abandoning the situation, not talking about it

This can also be a coping mechanism to deal with criticism.

Utilize a 5 to 1 positive to negative ratio - five good things to one bad thing.

“I” Statements:

“I feel” takes responsibility for what we feel. Use early in the sentence. Non-verbal communication is critical. In fact, 93% is nonverbal (e.g.: first impressions).

Generally, men show love through actions - women show love through talking.

It is best to express negatives verbally. Use positive non-verbal communication to keep the situation from escalating. Listen more, talk less. DO NOT talk over each other!!! Reduce distractions to keep your attention on what is being conveyed to you. Validate or acknowledge shortcomings; ask for forgiveness for those issues. Be sensitive to “hot button” topics. Remember to negotiate; give and get. Pick your battles; not everything is worth making into a big discussion. Remember, change is slow; it is a process!

When communicating with your children:

1. Be available
2. Let them know you are listening
3. Respond in a way they will hear and understand

Job Springer recommended a book called “Love and Logic” to help cope with parenting problems.

David Lane - Iron Mountain

PowerPoint tips: F1 gives slide show help

“B” = blackout screen

“W” = whiteout screen

“Keep on Keepin’ On” with a positive outlook.

“The healthiest of all human attitudes is gratitude” - Zig Ziglar

We divided into groups to do a “Steps to a Positive Attitude” exercise. The general first or second point of each groups’ list was to “choose to be positive”. A great take home message!

www.lifewithoutlimbs.org

www.attitudeisaltitude.com

