

# Weekend rain is only drop in water deficit bucket

LANCASTER — Sunday's and Monday's rainfall did little to appease southeast Pennsylvania farmland's thirst for water.

According to state specialist, the area is averaging a 12 inch deficit in rainfall — the teasing precipitation experienced here early in the week only put one inch in the more-than-empty rain barrel.

According to Jane Smith, environmental planner with the Bureau of Resources Programming, Department of Environmental Resources, that one inch of precipitation, falling as snow, sleet, and rain, provided 4 million gallons of runoff water per square mile under the low soil moisture conditions existing in the state.

Hydraulic engineer Steve Runkle explained the one inch rain produced 0.2 inch direct runoff. In layman terms, Runkle stated this amount of runoff would provide "about four days worth of water in a good sized community, like the Hazleton area."

Current figures show the water shortage to be a regional problem. DER reports Allentown has a 14-inch deficit, Harrisburg has a 9-inch deficit, Chester County comes in with a 10-inch shortage, while Selinsgrove has a 12-inch deficit.

"We've had two severe months of virtually no precipitation," observed Runkle. "We're still way

behind the norm, and it will take several months of above normal precipitation to catch up."

The DER hydrologist pointed out this water shortage is following a trend started last year in May.

"We were behind in precipitation from last May on," he said. "We were ahead going into May. But each month's shortage produced a cumulative effect, and now we're feeling it. There was only one month with normal precipitation since last May."

"Will we catch up in time to have a normal crop year?" Said Runkle. "It's too early to predict crop yields."

Just looking at corn, of all the factors that affect production, water is most important. From emergence to harvest, corn generally requires 16 to 26 inches of water, according to DeKalb agronomist Wayne Fowler.

Total water required for a successful corn crop varies from season to season and from area to area, he noted. Even in the corn plant's growth cycle, water intake varies.

"During the first 45 days when plants are growing to waist high, water consumption increases from essentially zero to about 0.15 inch per day."

"Then during the rapid plant growth state, moisture demand increases sharply to a maximum of about 0.35 inch per day during the

pollination period. Under hot, low humidity conditions, this maximum has been reported to be as much as half an inch per day."

Moisture demand tapers off after pollination and is down to roughly 0.65 inch per day when grain reaches physiologic maturity.

Any time these moisture demands cannot be met, plants suffer. With corn, the most critical growth state is from a few days prior to tasseling to a few days after pollination is completed. This is a time of extreme demand for both water and nutrients.

A lot can happen precipitation-wise between now and next fall's corn harvest, but what about the small grains that are out there competing for survival now?

According to Arnold Lueck, Lancaster County Extension Agronomist, the 24 hour rain that fell on February 1 and 2 was a life-saver for small grains.

"Things were just starting to get critical," he said. "But after the rain, the picture changed drastically."

Lueck pointed out wheat, barley and rye were undergoing a stress period for the past couple months. Fortunately, they're dormant and don't require a lot of water, he pointed out.

"Luckily, we haven't had a lot of wind recently," Lueck exclaimed, "which would have dried out the plants — dehydrated them."

The Lancaster agronomist noted the small grains did not benefit much this winter from the insulating effects of snow cover since the snows that fell "didn't lay."

"You didn't have to look far from the field to see brown snow drifts where the soil had blown," he said.

Lueck predicted the small grain crop to "be all right" this summer. It was a timely rain, he concluded.

Along with the small grain growers, several other Lancaster County farmers welcomed the rain. Among them was Philip Crouse, 21, son of Galen Crouse, Ephrata.

Since last September, the Crouses have been hauling water to their farm to supply the water for domestic needs as well as for

their 100 milking Holsteins.

"Last November we buried a 12,000 gallon tank which has helped a little bit, but we still had to haul 5000 gallons of water two weeks ago," Phil recalled.

The farm's seven wells and spring started going dry last fall which necessitated hauling 1200 gallons of water every day to meet the livestock and human needs.

"We're blaming the weak water supply on the weather," said Phil. "The wells have never gone dry before in my life time, although Dad talks about it being dry one other time in the 1950's."

Phil said the snow melt seems to have helped to revive the sluggish spring and wells. But even at best, two of the wells flow at only a half-gallon-per-minute rate while the other three push only a gallon or two per minute, according to Phil.

"We're not in the best place for water or well drilling," he noted, revealing two additional wells had been dug which were both failures.

The Lancaster County Soil and  
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## Sheep, wool growers to meet

MECHANICSBURG — This Thursday, February 12, is the deadline for tickets for the annual meeting of the Cumberland Cooperative Sheep and Wool Growers meeting.

The 12th annual growers banquet will be held Monday evening, February 23 at 7 p.m.

The location will be the First United Methodist Church, on the corner of Frederick and Simpson Ferry Roads, Mechanicsburg.

The directors decided that a banquet should be held in conjunction with the annual meeting again this year. Of course, the meal will feature lamb.

Tickets for the banquet will run \$4.25 for adults with the cooperative making up the dif-

ference. Tickets for 4-H members who completed a sheep project in 1980 will be \$2.25.

Children under 10 also are welcome for \$2.25.

In addition to the banquet there will be a brief business session, the election of two directors and one auditor, the president's report, and recognition of 4-H members.

Dr. Lester Griel, the veterinarian for the Penn State sheep flock, will be on hand to discuss "A health program for your flock."

Any grower who pooled wool at the 1980 Cumberland Cooperative wool pool automatically is a member of the Cooperative and is welcome to attend the annual meeting.

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