Instructions for
Determining Precipitation Forecasts for CAFO Permits
using the
National Weather Service Web Site

WARNING: Do not be intimidated. This is much easier than it may seem at first. Once you learn how to do this and save the results in your Favorites, you can check both forecasts in less than a minute (or up to a few minutes depending on your internet connection speed). In fact, you may find these forecast models useful in planning other areas of work on your farm.

Start at this Web site: https://www.weather.gov/mdl/mos_getbull. Once you are there, you may wish to save it in your Favorites. If the Web site has changed or the required forecast models are no longer available, please contact the Michigan Department of Environmental Quality Office listed on your Certificate of Coverage or the cover page of your permit

1. In the list of states on the left side, click on "Michigan."
2. In the list that comes up on the right side, click in the box for the station closest to the land application location. You may need to select two or three stations if none are close to the land application area. If selecting more then one station, note the 4-letter station designation after each station name so you know which chart is for which station.
3. Once you select the station(s), scroll to the bottom of the Michigan station list and click on "Go to the bottom to submit now.". Then click on the "Submit Query" box.
4. You will now have a very confusing chart for each selected station (you can save this page in your Favorites). Look down the left-hand column for "Q24" and read across the first number. It will be one digit from 0 to 6. This number is the quantity precipitation forecast for the upcoming 24- to 48-hour period. 0 = no precipitation, 1 = 0.01" to 0.09", 2 = 0.1" to 0.24", 3 = 0.25" to 0.49", 4 = 0.5" to 0.99", 5 = 1.0" to 1.99" and 6 = > 2.0".

   Next check the P24 number. P24 is the probability of precipitation for the upcoming 24- to 48-hour period. If the Q24 is 4 or greater and the P24 is 70 (70%) or more for the same period, you may not land apply. OR if the Q24 is 5 or greater (with any P24 number), you may not land apply.

   Note: if it has been determined that a smaller precipitation event is capable of producing runoff or erosion, then use a smaller precipitation quantity forecast number. For example, if 0.35" of precipitation in 24 hours on a particular field will produce runoff or erosion, then you may not land apply if the Q24 number is 3 and the P24 is 70 (70%) or more for the same period, or if the Q24 is 4 or greater (with any P24 number).
5. You may need to check the charts two or three times in advance of a planned land application event to determine the precipitation amount forecasted for the land application time frame.

In the event that you are immensely curious as to what all the rest of the data on these charts means, then go back to this Web site https://www.weather.gov/mdl/mos_getbull, and in the left-hand column click on "About MEX" to get to an explanation page.

Once you have saved a chart in your Favorites, you can click on the link and get to the current chart with just one click!