

ARKANSAS PRODUCE SAFETY



Microbial Water Quality Profile (MWQP): The Basics

WHO NEEDS TO BUILD AN MWQP?

Farms that must fully comply with the Food Safety Modernization Act Produce Safety Rule (PSR) will need to create an MWQP. See [Does the Produce Safety Rule Apply to Me](#) to determine if your farm is covered by the rule.

WHAT IS AN MWQP?

An MWQP provides a **long-term picture of the water quality from a specific source** that helps determine that source's appropriate use on the farm and if it needs to be treated.

WHY SHOULD YOU BUILD AN MWQP?

The PSR requires that **“all agricultural water must be safe and of adequate sanitary quality for its intended use (§112.41).”** Specific criteria for water quality, including the geometric mean (GM) and statistical threshold value (STV), are outlined in [§112.44](#), and an MWQP will help you calculate values for these criteria.

WHEN SHOULD YOU START BUILDING AN MWQP?

Compliance dates depend on business size. See [Microbial Water Quality Profile \(MWQP\): When to Start](#) for current compliance dates.

WHERE SHOULD YOU COLLECT YOUR WATER SAMPLES?

Every ground water and surface water source used in crop production (including growing and packing activities) **needs its own MWQP.** For example, if you use two wells for crop production, both wells need their own MWQP. If you use municipal (public) water, you do not need an MWQP. For more information on where and how to collect water samples see [Microbial Water Quality Profile \(MWQP\): How to Collect Your Water Samples](#) or contact your [county agent](#).

HOW CAN YOU CREATE AN MWQP?

You will need to **collect water samples and have them analyzed for generic *E. coli*.** For information on how to take water samples, see our fact sheet [Bacterial Water Sample Collection and Submission to a Water Quality Lab for Compliance with the Food Safety Modernization Act's Produce Safety Rule](#). For information on where to have water samples analyzed, see [Microbial Water Quality Profile \(MWQP\): Water Testing Labs for Arkansas Growers](#). **Once you have your water reports,** use the number of *E. coli* (not the total coliform number) to **calculate the GM and STV.** For more information on these calculations, see our fact sheet [Food Safety Modernization Act Produce Safety Rule: Microbial Water Quality Compliance](#). For help building and maintaining your MWQP see the [Arizona State University's Ag Water app](#) or the [Western Center for Food Safety's Excel tools](#).

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