

## How are biosolids regulated?

Since 1993, the EPA has regulated biosolids under the Part 503 Rule. KUB, like all utilities with a Biosolids Reuse Program, must regularly submit monitoring results to the EPA to demonstrate that the product meets regulatory requirements. KUB also provides that same reporting information to TDEC.

Biosolids are classified by the amount of treatment they undergo to reduce or eliminate pathogens. KUB produces Class B biosolids. EPA regulations require reducing pathogens in Class B biosolids to levels that do not pose a risk to human health when managed and applied properly to land.

## What other steps does KUB take to ensure the safety of biosolids?

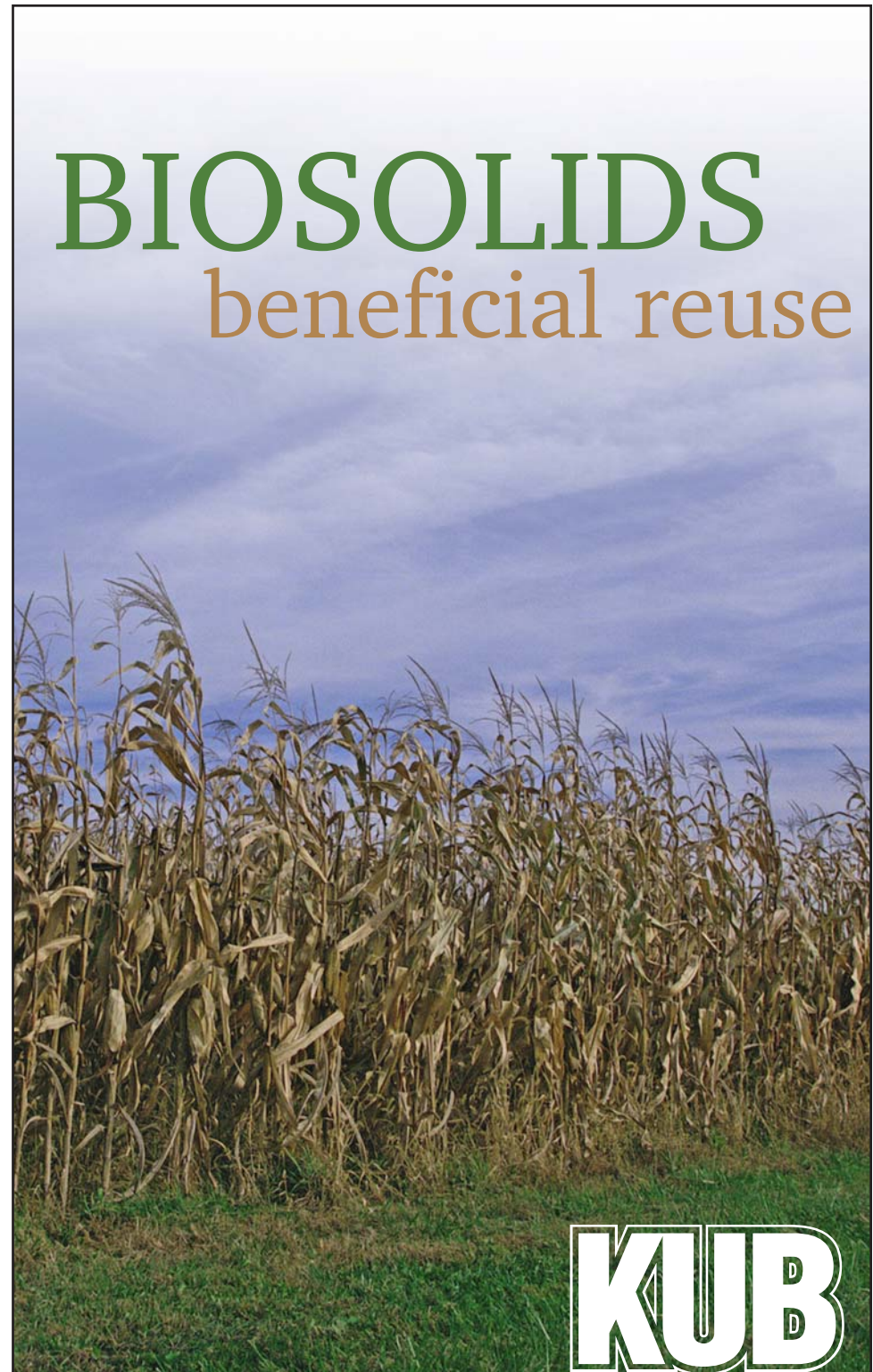
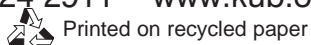
KUB biosolids meet all regulatory requirements to protect the public health and environment. KUB is also voluntarily working with the National Biosolids Partnership (NBP) to develop an Environmental Management System (EMS) for our biosolids program. An EMS goes beyond environmental regulations to incorporate practices that support even higher standards for biosolids programs.

KUB also follows the Code of Good Practice developed by the NBP. The code is a broad framework of goals and commitments to guide the production, management, transportation, storage, and use or disposal of biosolids.

For more information on KUB biosolids, visit [www.kub.org](http://www.kub.org) or call 594-7621.



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## What are biosolids?

Biosolids are the nutrient-rich organic material produced by wastewater treatment and additional post-treatment processing. The wastewater goes through the full biological treatment process required to meet strict regulations for release to receiving streams. Solids from the fully treated wastewater are further processed in digesters.

KUB biosolids are registered as a fertilizer with the Tennessee Department of Agriculture. Biosolids can be recycled and are used to improve and maintain productive soils and stimulate plant growth. KUB provides approximately 30,000 wet tons of material to local farmers as a fertilizer and soil conditioner annually.

## How do biosolids benefit the environment?

Land application of biosolids is beneficial to farmers, municipalities, and the community, and it takes place in all 50 states. Farmers and gardeners have been recycling biosolids for ages, and the use of biosolids has increased significantly over the past 20 years.

- Biosolids provide organic material that can improve yields over several harvests.
- Biosolids can be a cost-efficient complement or alternative to chemical fertilizers.
- Biosolids meet strict quality control and safety requirements set by the Environmental Protection Agency (EPA). Regular monitoring verifies compliance.
- KUB biosolids are Class B/pathogens reduced. The site is temporarily restricted until pathogen breakdown is complete.



## What are the requirements for biosolids use?

When a farmer applies for biosolids, Synagro (KUB's biosolids management contractor), sends a Technical Service Manager (TSM) to evaluate the suitability of the site and discuss the program with the farmer. The TSM samples the soil and calculates the amount of biosolids required to meet agronomic needs.

The TSM records the physical features of each field on maps, along with any sensitive areas, like streams or ditches. The TSM also completes a permit application showing the site, loading rates, application area, non-application area, buffers from sensitive areas, crops to be grown, and operator's/owner's acknowledgement of the application. Synagro submits the application to the Tennessee Department of Environment and Conservation (TDEC) for approval.

Sites must be at least 50 acres and meet both TDEC and EPA requirements for land application. Buffering around streams, homes, wells, and property boundaries will reduce the total acreage to which biosolids are applied.

## How are biosolids applied?

Synagro delivers the biosolids to the field and applies them for the farmer using a tractor-pulled side slinger or manure spreader. The contractor does not apply biosolids during inclement weather. During the summer season, biosolids are generally applied within a week or two of delivery. In the winter months, Synagro often prepares a rock pad on which to store the biosolids.

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