

Improve your bottom line from the underground, up.



Total drainage solutions
for agriculture



Is drainage at the top of your list?



According to research experts, the top twelve factors that affect yield are: (Listed in order of importance)

1. **Drainage**
2. **Crop variety**
3. **Insect/seed problems**
4. **Crop rotation**
5. **Tillage (timing and type)**
6. **Compaction (susceptibility by soil type)**
7. **Soil pH (liming)**
8. **Herbicides (misapplication & drift, organic tie up and clay %)**
9. **Subsoil conditions (clay layer, acid fragipans)**
10. **Fertilizer placement (broadcast, band, stratification)**
11. **Fertility of soil**
12. **Plant population (23,000 vs. 30,000)**

Is drainage at the top of your list? It should be. Many agricultural professionals agree that improved drainage is one of the most cost-effective ways to increase crop production.



Disaster prevention – Drainage helps lessen the risk that fields will be too wet to plant.

A longer growing season – Well-drained soil warms faster in the spring, allowing for earlier planting.

Prevent heavy soil erosion – A quality drainage system enables the soil to absorb heavy rainfalls.

Reduced downtime and labor costs – Operations on well-drained soil can be completed faster than damp ground. Also reduces wear and tear on equipment and lowers fuel consumption.

Increased revenue – With greater crop production and improved farming operations, a quality drainage system can pay for itself within five to seven years. ADS G.R.O.W. AnalysisSM proves this.

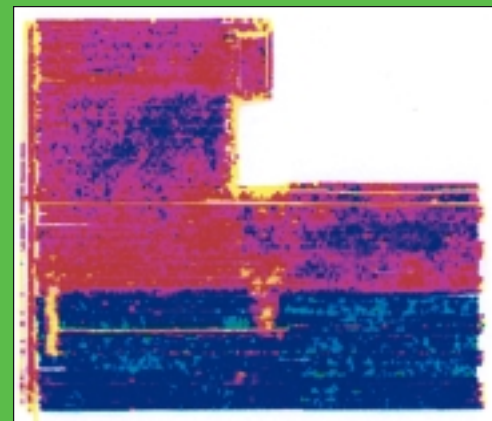
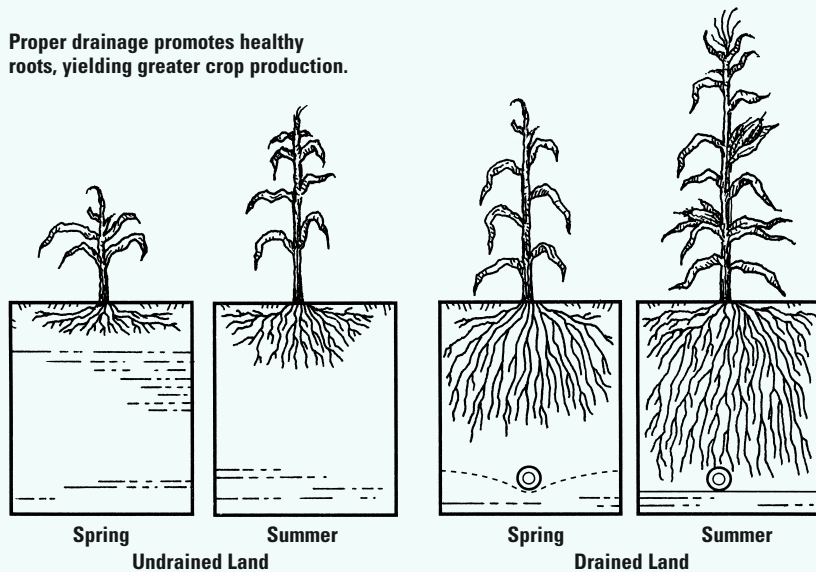
ADS has over 30 years experience in agricultural applications. Our pipe – the one with the distinctive green stripe – has been used for everything from mains and gravity manure systems to culverts and open ditch enclosures.

Numerous benefits are gained by improving agricultural drainage systems:

Greater crop production – According to a study by The Ohio State University, subsurface drainage can increase crop production up to 50 percent.

Make resources more efficient – Fertilizer and crop protection products work best with an effective drainage system.

Proper drainage promotes healthy roots, yielding greater crop production.



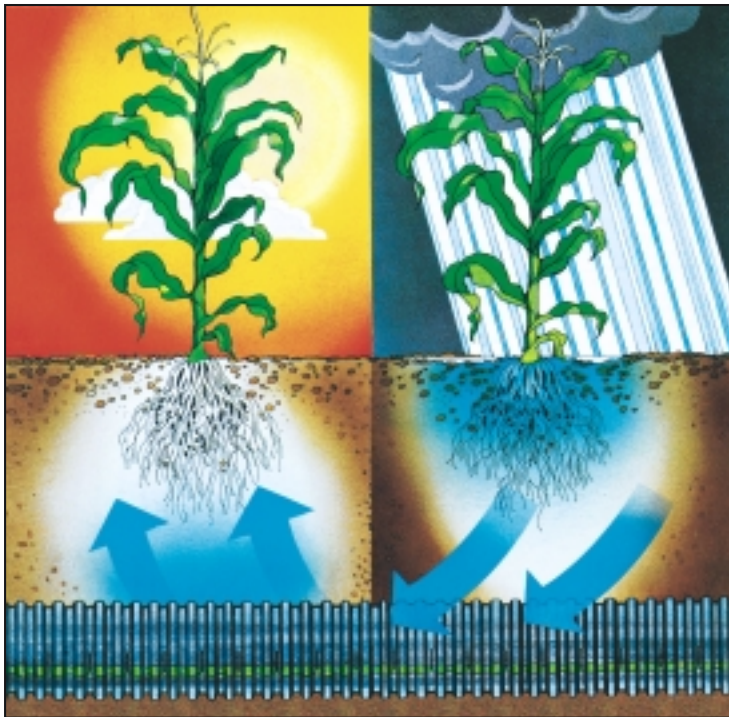
Corn (220-130)		
220 and greater	180 to 189	140 to 149
210 to 219	170 to 179	130 to 139
200 to 209	160 to 169	less than 130
190 to 199	150 to 159	

This GPS yield map shows a corn field in which the lower third features an ADS drainage system. It's plain to see the difference drainage makes – the drained portion produced around 40 bushels per acre more than the field's average yield.

Irrigation and drainage with the same pipe



An Irri-Drain head-control stand at the edge of a corn field.



The ADS Irri-Drain® system allows fields to be irrigated and drained using the same pipe and installation. By installing the Irri-Drain system, farmers gain better – and immediate – control of the moisture in their fields.

In the irrigation process, water can be pumped back into the field via the perforated pipe system – watering crops’ roots directly. When drainage is required the pump is shut down and the drainage outlet is opened.

In 1992, The Ohio State University and the USDA Agricultural Research Service began a five-year subirrigation/drainage study in Ohio. The results show soybean yields and corn yields as great as 43% and 30%, respectively, for subirrigation/drainage systems compared to subsurface drainage alone.

The Irri-Drain system:

Saves money – Irri-Drain is comparable in price to a pivot irrigation system.

Saves energy – Using gravity flow and low pumping pressure, an acre-inch of water can be built into the sub-soil with minimal energy usage.

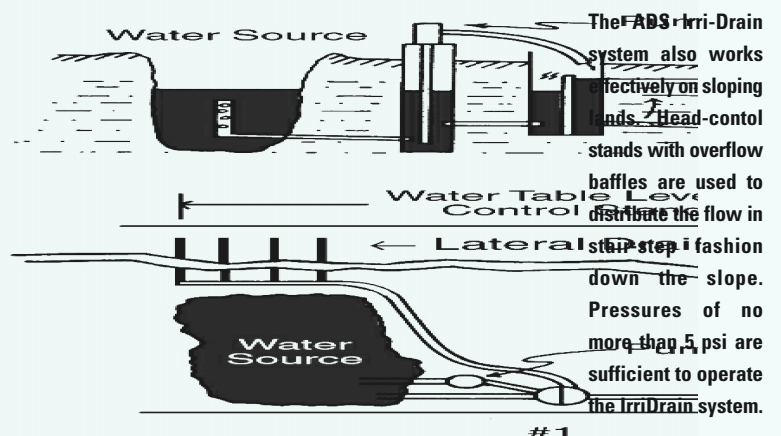
Eliminates evaporation – Common overhead sprinklers waste a great deal of water.

Increases field coverage – Irri-Drain reaches corners that pivot systems can’t touch.

Encourages deep rooting – Allows for maximum moisture and nutrient intake.

Allows for modifications – Irri-Drain is easily adaptable to previously installed drainage systems.

Sloping Land Design



Proof that drainage pays



G.R.O.W. AnalysisSM software shows why draining fields gives a **Greater Return On Water** and a greater return on investment. The software shows how a drainage system from ADS pays for itself (and then some) with increased yield alone.

Land Purchase AnalysisSM software illustrates how the purchase of more land would affect a farm's bottom line. Rarely do the benefits of investing in more land exceed the value of draining presently owned fields.

Both programs are easy to use and only require that the user complete a short information form to help generate accurate data. The software is available free of charge from your local ADS sales representative or online at www.ads-pipe.com.

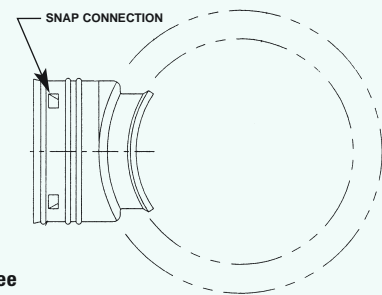
Agriculture mains that work as hard as you



The sizing and maintenance of agriculture mains is crucial for the performance of drainage systems. No matter how many acres need to be drained, ADS has a product to fit your specific installation needs.

For agriculture mains, ADS offers both perforated and solid single wall corrugated pipe in sizes up to 24". Maxi coils of large diameter pipe are available in sizes up to 12". A maxi coil of 12" pipe contains 300', 10" contains 520' and 8" contains 820'.

ADS also offers N-12[®] pipe. This pipe's smooth interior reduces friction, allowing water to flow smoothly. And its corrugated exterior provides superior strength. N-12 pipe is manufactured with integral bell couplers or straight end pipe with split couplers to make installation simple.



ADS manufactures tees for all sizes of pipe that make it easy to connect the submains and laterals to the main line – saving time and money. Also available are 4" tap tees that allow the lateral to be connected to the agriculture main by drilling a hole and then inserting the tap tee.



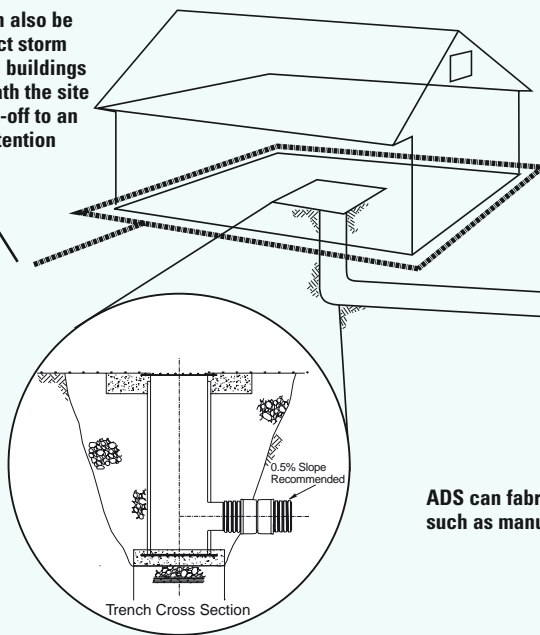
Water and effluent management for animal feed operations



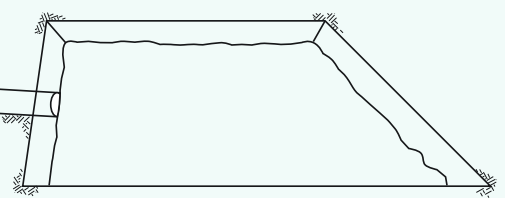
ADS manufactures smooth interior high density polyethylene (HDPE) pipe for a variety of installations enhancing animal feed operations. All ADS products meet and exceed the strictest engineering specifications.

ADS offers both soil-tight and water-tight N-12 pipe joints to fit a wide variety of needs around animal feed operations.

N-12 pipe can also be used to collect storm water around buildings and underneath the site and route run-off to an outlet or a retention system.



Because HDPE is inert to animal effluent, N-12 pipe can be used for manure transfer from the barn to the animal waste lagoon.



ADS can fabricate a wide assortment of fittings to fit the project's requirements such as manure pond risers, manure reception pits and recharge line risers.

Geotextiles help keep soil where it belongs

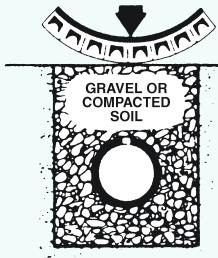
Woven and nonwoven fabrics improve the load carrying capacity of soils and can prevent rutting in animal loafing areas and unpaved roadways. Geotextiles also provide subgrade stabilization under waste ponds and pits, and help keep fine or silty soils out of buried drainage collector pipe. In addition, ADS supplies pre-assembled silt fence to control sedimentation and run-off.



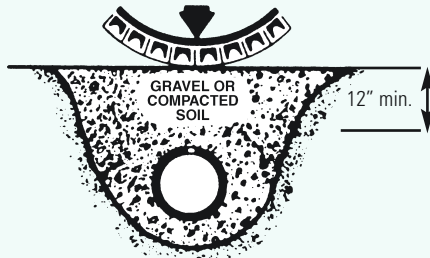
Culverts you can count on



Trench Installation
(H-20 Load)



Open Ditch Installation
(H-20 Load)



ADS N-12 pipe is the ideal choice when it comes to culverts. With just one foot of cover and proper backfill, N-12 pipe can withstand the heaviest farm traffic – including grain trucks, combines and tractors. A culvert installation is light work for the toughest HDPE pipe on the market – N-12 and N-12 HC®.

Advanced terrace drainage



Terraces have long been one of the most effective methods used to reduce soil loss on sloping ground. ADS provides pipe and inlets for a complete terrace drainage system.



ADS pipe helps complete an efficient terrace drainage system.

Easy-to-use heavy duty single wall ADS fittings

ADS is America's largest manufacturer of quality corrugated HDPE pipe. In addition, ADS manufactures a complete line of fittings and couplings, simplifying installations for agriculture drainage applications.

Split Coupling



3" - 311AA 8" - 811AA
 4" - 411AA 10" - 1011AA
 5" - 511AA 12" - 1211AA
 6" - 611AA

External Snap Coupling



3" - 312AA 6" - 612AA
 4" - 412AA 8" - 812AA
 5" - 512AA 10" - 1012AA

Internal Coupler



4" - 415AA 6" - 615AA
 4" - 417AA 8" - 815AA
 5" - 515AA

Reducing Coupler



3" x 4" - 314AA 8" x 6" - 816AA
 5" x 4" - 514AA 10" x 8" - 1018AA
 5" x 6" - 516AA 12" x 10" - 1210AA
 6" x 4" - 614AA

Internal Reducing Coupler



4" x 5" - 425AA
 5" x 6" - 526AA

Blind Tee



3" - 341AA 6" - 641AA
 4" - 441AA 8" - 841AA
 5" - 541AA 10" - 1041AA

Snap Tee



3" - 321AA
 4" - 421AA
 5" - 525AA
 6" - 626AA

Multiple Reducing Tee



6" - 644AA
 8" - 844AA
 10" - 1044AA
 12" - 1244AA

Multiple Cross Tee



6" - 654AA

45° "Y"



3" - 322AA 6" - 622AA
 4" - 422AA 8" - 822AA
 5" - 522AA

Snap End Cap



3" - 332AA
 4" - 432AA
 8" - 832AA
 10" - 1032AA

Perforated End Plug



4" - 434AA

Solid End Plug



3" - 333AA
 4" - 433AA
 5" - 533AA
 6" - 633AA

Split End Cap



3" - 331AA 6" - 631AA
 4" - 431AA 8" - 831AA
 5" - 531AA 12" - 1231AA

Tap Tee



3" - 350AA
 4" x 10/12 - 410AA
 4" x 8 - 450AA

Clay Adaptor



3" - 362AA
 4" - 462AA
 5" - 562AA
 6" - 662AA
 8" - 862AA

Elbow



3"-90° - 390AA
 4"-45° - 445AA
 4"-90° - 490AA



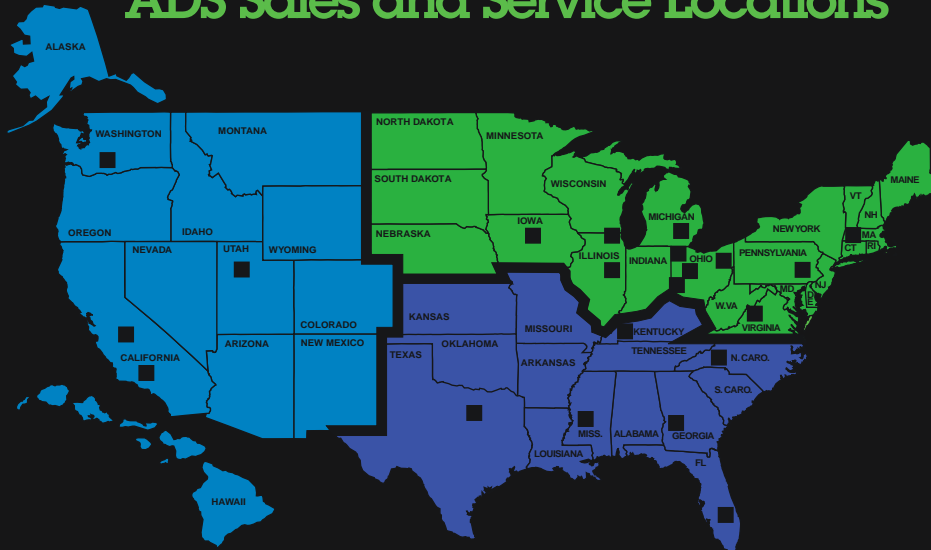
Grow your business with ADS

Your local ADS representative offers a number of valuable services for farmers, contractors and distributors:

- G.R.O.W. AnalysisSM
- Land Purchase AnalysisSM
- Irri-Drain[®]
- Water flow calculators
- Septic systems
- Installation training
- Farmer meetings
- Marketing support

Contact your local ADS representative today at 1-800-821-6710.

ADS Sales and Service Locations



ZONE OFFICES

- **MIDWEST / NORTHEAST**
LONDON, OH
1-800-733-9554
- **SOUTHERN**
FRANKLIN, TN
1-800-733-9987
- **WESTERN**
WASHOUGAL, WA
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21 manufacturing facilities, 30 distribution centers,
and 4,000 independent distributor locations



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SYSTEMS[®]**



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