Problem #1

Leaky air-conditioning duct joints, especially those running through a hot attic, create a moist environment for mildew. **Solution:** Seal all duct joints with the special flexible mastic available at heating and cooling supply stores.

Problem #2

In warm environments, impermeable vinyl wallcoverings can trap moisture-laden air as it moves from the warm exterior to the cooler interior. Mold degrades the drywall and adhesive behind the vinyl wallcovering.

Solution: Use paint or apply wallcoverings with permeable paper backings that don't trap moisture on exterior walls.

Problem #3

When washing machines in a room without a floor drain overflow or hose connections burst, water with no point of exit will soak into adjacent carpet, drywall and insulation.

Solution: Always provide a floor drain near the washing machine. Install an overflow pan directly under the machine or install a 1-in. lip at the doorway to contain overflows in main-level or second-story laundry rooms. (An overflow pan is available for about \$125 plus shipping from AMI, 800-929-9269.)

Problem #4

Water-resistant drywall used as a tile backer quickly degrades once subjected to moisture.

Solution: Install cement backer board, which will remain structurally sound even if repeatedly subjected to moisture.

Problem #5

Poorly ventilated bathrooms allow surface mold to grow. **Solution:** Install a bathroom fan (or at least, open a window) to exhaust moisture. Remove surface mildew by scrubbing the area with a 1/2 percent bleach solution. When the area is dry, prime it with an alcohol-based, white pigmented shellac, such as Zinsser Bullseye, and use a paint containing mildewcide.

Problem #6

Poorly constructed crawlspaces promote mildew growth. Bare earth floors transmit huge amounts of moisture.

Solution: There are many regional differences and solutions. Cover bare earth with 6-mil poly sheeting. Heat, cool and humidify the area the same as the rest of the house.

13 common breeding grounds for mold and mildew

Problem #13

Leaky flashings and shingles allow rain to infiltrate attics, insulation, eaves and other areas that can trap moisture and be difficult to inspect.

Solution: Perform yearly roof inspections—even if you do it from the ground with binoculars.

Problem #12

Improperly flashed or caulked windows (and those with large amounts of surface condensation) let moisture seep into the surrounding wood, drywall and insulation.

Solution: Properly flash and caulk windows during installation; minimize condensation with good ventilation and airflow.

Problem #11

Yards that slope toward foundations invite water to enter basements and crawlspaces.

Solution: Regrade yard surrounding house so it slopes away at a rate of 1 in. per foot.

Problem #10

Finished concrete basements that haven't been thoroughly waterproofed from the outside are problematic. When moisture migrates through the earth and nonwaterproofed concrete walls, it can get trapped behind vapor barriers, carpet, layers of insulation and drywall. **Solution:** Thoroughly waterproof the exterior of concrete walls before backfilling. Install 6 in. of gravel under concrete floors during construction to prevent moisture from wicking up through concrete floors and into floor coverings.

Problem #9

The condensation pan directly under the coil of your central air conditioner can harbor mold.

Solution: Before each cooling season, clean the pan with a 1/2 percent bleach solution and make sure the continuous drain is working.

Problem #7 Freshly cut firewood stored indoors emits huge amounts of moisture. Solution: Store it outside.

Problem #8

Humidifiers (especially reservoir-type central units and portable units) provide both a growth medium and a distribution system for mold and mildew. **Solution:** Clean and treat the reservoir

often with an antimicrobial solution, available at most hardware stores.