Irrigation and source water should be tested annually for mineral levels, alkalinity and salinity indicators.

Nutrient solutions and potting media should be tested periodically through the growing season or whenever problems arise, in order to ensure that target nutrient concentrations are being supplied.

Standard analysis is $5 per N.C. grower sample ($12 for research; $25 for out-of-state) and includes nitrate-nitrogen, ammonium-nitrogen, urea, phosphorus, potassium, calcium, magnesium, sulfur, iron, zinc, manganese, copper, boron, sodium, chloride, pH and electrical conductivity/soluble salts. Solution analysis also includes alkalinity, hardness and sodium adsorption ratio.

Media sampling: Collect media in a quart size Ziploc bag or other sealable container. For post-plant media, collect media from multiple pots either by hand (small pots) or with a probe (large pots). Media can also be collected by removing the plant from the pot and shaking to remove loose media. Do not include plant roots in the sample.

Water and solution sampling: Collect water in a clean plastic container such as a 16 oz soda or water bottle.

Irrigation and source water—before sampling, run water 5 to 10 minutes and collect sample from the tap or emitter.

Nutrient solutions—collect sample from the emitter, NOT the stock tank.

Pour-through—collect leachate from several pots and submit in a clean plastic bottle.

Label each sample with a sample ID and fill out the applicable sample submission form (see website below)

Turnaround time: 3-4 days from receipt

Send samples to:
NCDA&CS Agronomic Services Solutions and Media Section
Mailing address (USPS):
1040 Mail Service Center, Raleigh, NC 27699
Physical address (UPS, FedEx):
4300 Reedy Creek Rd, Raleigh NC 27607
Phone: (919) 733-2655

For more detailed information, visit the Media & Solution Analysis page at www.ncagr.gov/agronomi or contact the regional agronomist for your county.