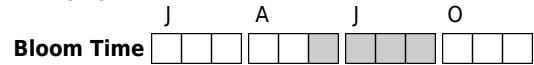




***Achillea millefolium***  
**Common Yarrow**  
upright perennial

Height (in.): 18-24  
Spread (in.): 18-24

Water Needs: Foliage Color: Gray-Green  
Sun Exposure: Bloom Color: Varies  
USDA Hardiness Zones: 2b-3a  
Sunset Zones: A1-A3, 1-24, 26, 28-45



***Agave geminiflora***  
**Twin Flowered Agave**  
accent succulent

Height (in.): 18-36  
Spread (in.): 24-48

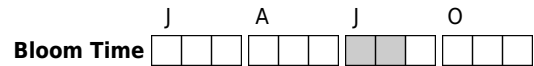
Water Needs: Foliage Color: Green  
Sun Exposure: Bloom Color: Pale Yellow  
USDA Hardiness Zones: 7b-8a  
Sunset Zones: 13, 20-24



***Allium acuminatum***  
**Tapertip Onion**  
upright perennial

Height (in.): 6  
Spread (in.): 6

Water Needs: Foliage Color: Green  
Sun Exposure: Bloom Color: Lavender  
USDA Hardiness Zones: 6a-6b  
Sunset Zones: 3-9, 14-24



***Allium cernuum***  
**Nodding Onion**  
upright perennial

Height (in.): 12-18  
Spread (in.): 4-6

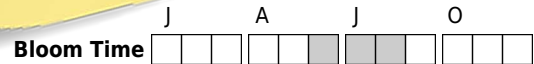
Water Needs: Foliage Color: Green  
Sun Exposure: Bloom Color: Lavender  
USDA Hardiness Zones: 6a-6b



***Allium schoenoprasum***  
**Chives**  
upright perennial

Height (in.): 12-18  
Spread (in.): 12-18

Foliage Color: Green  
Bloom Color: Lavender



***Allium senescens***  
**Ornamental Onion**  
upright perennial

Height (in.): 6  
Spread (in.): 6

Foliage Color: Blue-Green  
Bloom Color: Lavender



This is a partial list of plants for this city. Please contact Hydrotech @ 800-361-8924 for the complete list.

# American Hydrotech Extensive Plants

American Hydrotech recognizes the need for a diverse and regionally appropriate plant palette on an Extensive Garden Roof®. Attached is a list of thoroughly researched plants specifically chosen for the climatic conditions of your project's location. These plants have been selected for their hardiness, drought tolerance, and aesthetic appeal.

All of the plants on this list are available through Hydrotech as 50 or 72 count plugs. These plants are sold as part of the Garden Roof Warranty, covering everything from watertightness through plant coverage (or thrive, depending on the plants selection) including removal and replacement of all overburden supplied by American Hydrotech.

Growing conditions on a rooftop can vary greatly from conditions for a landscape at grade. Each roof is unique, and some of the more challenging issues a designer should check for include:

- **Adjacent buildings:** Overhangs may cause rain shadows and result in dry areas or concentrate rain and flood areas. High heat and light can reflect from adjacent windows and bright surfaces causing hot spots where plants may struggle. A roof enclosed by other buildings may experience minimal air movement which will also raise the ambient temperature on the roof.
- **Mechanical Units:** Exhaust vents, HVAC units and other mechanical equipment on a roof may give off heat and create small, warmer microclimates on a roof.
- **Wind and Slope:** Erosion and scouring may be a concern on some taller or more exposed buildings or roofs with a slope of more than 3:12. Contact Hydrotech for project-specific wind uplift and erosion prevention solutions.
- **Sun/Shade:** Different plants require different amounts of sunlight per day in order to thrive. If shade is a concern, it's best to conduct a sun/shade study for the building in order to determine exactly how many hours of sunlight different areas of the roof will receive. However, it's also important to remember that due to the potential for new construction adjacent to the site, the amount of direct sunlight the roof receives could change in the future. It's best to include a wide variety of plants in the original plans so the roof can adapt and change over time. If the sunlight levels change drastically the roof may need to be replanted with very shade tolerant varieties.

Other issues a designer should consider when planning for an Extensive Garden Roof include:

- **Sufficient Water:** As in any at-grade landscape, vegetated roofs need water at installation and during establishment. Vegetated roofs should have close access to sufficient water from hose bibs and irrigation systems during these times. **Contact Hydrotech for further information on requirements for sufficient water.**
- **Soil Depths:** In cooler to temperate regions minimum soil depths can be as low as 3-4". In hotter regions, the minimum soil depths increase to 5-6" and permanent irrigation may be a requirement.
- **Species Diversity:** Monocultures in the landscape are never a good idea. On a Garden Roof, a plant palette should include a wide and diverse blend of at least **four (4)** different species to ensure good plant coverage should one species begin to struggle.
- **Plant Evolution:** Whether planted with cuttings, plugs, or Instagreen Sedum Carpet or Sedum Tile, the appearance of the roof will change both seasonally and over an extended period of time. Seasonal variations will include color changes and on some deciduous species, the loss of foliage in the winter. As the roof matures and adapts to climatic and situational conditions, some species may become more dominant than others in certain areas of the roof.
- **Maintenance:** All vegetated roofs require some level of maintenance for long-term success. In order to keep the plant warranty valid, Hydrotech's Installation Manual and Maintenance Requirements must be followed.

**Please contact American Hydrotech's Garden Roof Department for additional details and assistance in interpreting this plant material list.**

## Key to symbols used in the Plant List:

- Water Needs:**
- Very low water needs
  - Low water needs
  - Moderate water needs
- Sun Exposure:**
- Sun
  - ◐ Part Shade
  - Shade