



STATEMENT OF SUSTAINABLE PRACTICES IN PLANT PRODUCTION

December 2010

Bohn's Farm and Greenhouses has engaged sustainable business and production practices throughout our company's history of more than 70 years. Our founder, Walter Bohn, has been an active member and has served leadership positions with the Soil and Water Conservation District. Walter's vision for sustainable stormwater reclamation and recycled irrigation water management allows Bohn's Farm and Greenhouses to responsibly accommodate practices detailed below.

The following provides a self-analysis of our wholesale production plant business in terms of the 8 **Sustainable Sites Initiative (SITES) Sustainable Practices in Plant Production**:

1. Use sustainable soil amendments. Use peat-free planting media or other sustainable sources.

Our current growing media is the Ball LN Potting Soil containing 50% aged pine bark, 15% composted rice hulls and 35% peat. We are current working with our growing media blender to trial the Ball DN Potting Soil containing 60% aged and fresh pink bark, 10% composted hardwood and 30% composted rice hulls.

2. Reduce runoff from irrigation. Capture and recycle all irrigation runoff water on site.

The original layout of our twenty acre production nursery fully recognized the benefits of capturing 100% of rainfall and irrigation water in a 5.5 acre irrigation pond. This was accomplished by establishing adequate grades and slopes as well as installing a network of solid and perforated drain pipe to carry the water to a central collection pond. Installed 6" perforated drain pipe alone totals 11,000 lineal feet encompassing the entire production area. Upon completion of our newest production greenhouse, irrigation tests were completed before and after filling the facility with plant material. These tests provided valuable information necessary to establish the optimum irrigation time cycles to limit the use of water and associated energy to run the system.

3. Reduce greenhouse gas emissions. Use on-site renewable energy sources to meet 10 percent of electricity demands OR engage in at least a two-year contract for the purchase of 35 percent of electricity from renewable energy sources.

The production practices we utilize to produce hardy herbaceous perennial crops requires only 12,000 s.f. of supplemental heat-equipped covered greenhouse space among a total covered greenhouse space of 211,500 s.f. The remainder of our production nursery is outdoors and non-covered. Only during extreme cold temperature periods is supplemental heat, utilizing natural gas, provided for winter-tender crops located in limited portions of non-heated covered greenhouse space.

4. Reduce energy consumption. Demonstrate that the energy use during the three most recent years is a least 25 percent less than the average energy use over the previous 10 years.

Natural gas use by our supplemental heat-equipped 12,000 s.f. production greenhouse has decreased in recent years, partly due to wise use of heat when absolutely required. **Natural gas** use (in therms) for the most recent ten years is as follows: FY00-01 - 14875; FY01-02 - 13647; FY02-03 - 14489; FY03-04 - 14396; FY04-05 - 13455; FY05-06 - 15309; FY06-07 - 13998; FY07-08 - 14940; FY08-09 - 7848; FY09-10 - 8490; **ten year average: 13145**. **Electric use** (in kWh) for the most recent ten years is as follows: FY00-01 - 104896; FY01-02 - 103241; FY02-03 - 105642; FY03-04 - 91869; FY04-05 - 115337; FY05-06 - 111501; FY06-07 - 98455; FY07-08 - 76119; FY08-09 - 63747; FY09-10 - 77470; **ten year average: 94828**.



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- 5. Use integrated pest management (IPM). Employ a certified IPM practitioner OR use a IPM-certified nursery.**

Two of our staff members currently hold pesticide applicator licensure with the Illinois Department of Agriculture, which includes IPM training. IPM practices at our production facility are essential to maintain the quality of the recycled irrigation water. Vegetation control in the form of mechanical removal and controlled glyphosate (Rounup®) application are utilized to reduce vector activity within and along the perimeters of the plant production facility. Insect and disease pest management is managed on a case-by-case basis. No broad spectrum or routine pesticide applications are realized. Certified pesticide applicators: Gary L. Bohn (cert. no.: 032 11946175); John P. Bohn (cert. no.: 032 00546174)

- 6. Reduce use of potable water or other natural surface or subsurface water resources. Use non-potable water (i.e. captured rainwater, recycled greywater, reclaimed/treated wastewater, water treated and conveyed by a public agency specifically for non-potable uses) 70 percent of total irrigation volume.**

100% of our greenhouses and outdoor production areas are irrigated with non-potable water from our on-site collection pond. Our non-potable water source receives stormwater runoff from 44 rural-suburban acreage, including all 15 acres of our plant production facility. Total rainfall in 2009 amounted to 53.1 inches (compared to the annual average of 38 inches). Water generated by our covered greenhouses in 2009 totaled 6,743,329 gallons.

- 7. Reduce waste. Conduct a waste audit to identify the weight or volume of on-going consumables, and reuse, recycle or compost 50 percent of the on-going consumables waste stream.**

Historically, recycling waste and by-products generated by the plant production process has been a part of both the business and environmental conscience at Bohn's Farm and Greenhouses. Local and regional material recycling vendors are regularly utilized to recycle all cardboard (8,150 pounds in 2009), odd-lots and damaged horticultural plastic containers (three truck loads ranging between 5,000 and 8,000 pounds per load), scrap steel and aluminum, and tires. An inventory of used horticultural plastic pots, conforming to our production standards, are reused for production associated with contract grown crops for landscape projects. During 2010, we reused over 8,000 4.5" (1qt), 52,000 6" (#1) and over 12,000 10" (#2) size pots for contract grown perennials. A significant by-product produced by our production facility, polyethylene film covering associated with our greenhouses, is now being recycled by an Urbana, IL-based recycler. We do extend the life of the 3-year film, initially used to cover our large production houses, by covering our smaller "hoop" houses. This reuse realizes an additional 3-4 years of use. While the reuse of the 3-year film is not aesthetically appealing, the extended use is practical and functional.

- 8. Recycle organic matter. Compost and/or recycle 100 percent of vegetation trimmings on site for use in nursery operations or for sale to the public.**

100% of organic waste generated by our production operations, including vegetation trimmings and growing media contents of non-saleable production, is composted at an on-premise location. Upon completion of the composting process, the resulting compost material is distributed with a manure spreader and incorporated with the soil at our adjacent agronomic crop land.

Submitted by: _____ Gary Bohn, President

Midwest Grown for Midwest Landscapes and Gardens