80,000 yards, a dealer may get .03 or .04 cents a yard reimbursement. The company sets these programs up on the basis that bills are paid by December 15th.

Peca will also talk to his dealers and potential customers during the winter. He'll set up temporary headquarters in a hotel and call on people for a few days in a row. During the winter they have more time to talk and listen to what Peca has to say. He attends shows in these various locations, also.

All the travel still means marketing. Peca says his company is using cheaper forms of marketing and keeping their name and logo in the public eye. One way to do this is to watch the market carefully and pour more marketing dollars in areas that are doing the most business. In a thriving region, marketing could be tripled.

Like most growers, Peca's firm advertises in the Yellow Pages, newspapers, and on radio. He thinks he may use the ASPA spot reel tape to show he's in touch with the industry as a whole. An addressograph with 6,000 plates enables the company to send out eight to ten mailings during the year. The flashiest eye catcher, though, looms over the New York State Thruway—a huge billboard. Peca says his competitors often hear, "Are you guys the ones with the sign on the highway?"

Peca says that, having grown up in the business, he realizes how important marketing is. "My father was the original Barnum & Bailey when it comes to promotion."

In Henderson, Colorado, LBT Turf Nursery owner Lora Leech finds her best marketing tool to be door hangers. Her sales crew scours the nearby Aurora, Englewood, and metropolitan Denver area for bare yards and drops off flyers. Last year they distributed 2,500 between July and September.

Lora Leech — "We explain that bluegrass can use less water than native grasses."



Ms. Leech calls the Denver area the Los Angeles of the 1960's in terms of its growth. She thinks 1981 will bring good sales. However, business has slowed and the water supply is low. "When business gets slow, we cut out the old grass and do the laying and installing for new work," she says.

A problem the Rocky Mountain sod industry

has faced with the officials in Aurora has helped them unite and educate the public. The officials were limiting bluegrass planting in favor of natural grasses. Leech and other sod growers began teaching the public watering practices and ways of holding moisture in the soil. They also talked about the best ways of mowing. "We explained that bluegrass can use less water than native grass," she says.

"A lot of people are out of work without water so this is very important. If our growers hadn't done this, I would have had to do it myself. Since we've spoken together, it gives a little more strength to what is said."

In Sumner, Washington, where Emerald Turfgrass Farms is headquartered, general manager Bob Johnson and sales manager Richard Giffin market for fun as well as benefit. In each monthly mailing, Giffin includes a humorous card which has little to do with turf but much to do with marketing. It grabs the customer's attention, gives him something to look forward to, and makes the Emerald Turf name a pleasant one.

The ASPA tape in its straightforward message wasn't appropriate for Emerald's market, Johnson says. He prepared his own radio tape in conjunction with a station to hit a particular market. In the spring, he focuses on the homeowner; at times of grand openings or special events he focuses on the landscape contractor and home builder—those who sell sod and help develop a radio message.

Johnson aims advertising at the large buyer and picks special editions of newspapers and trade journals, which people will save, to include his company. The landscape contractor and home builder have been Johnson's main market for the past 20 years and he sees no reason to create new markets. "I look at opportunities to reinstate our name," he says. There is no set pattern or formula for this. "If I see it looks good, I jump in."

Emerald sends direct mailings to builders, home and commercial landscapers, and landscape contractors. The company's contact with homeowners comes through the Yellow Pages and referrals from landscapers.

A distinct logo, "ET," provides solid name recognition. The logo goes on hats, pens, matches, and decals for customers' trucks. Emerald Turfgrass has also made a short movie about lawns that's enjoyable for viewers.

Johnson says business is good in the Puget Sound area. Competition is tough but hasn't caused a drastic impact on his shipping. Uniqueness and good naturedness seem to keep the company apart from others.

On the other side of the country in Sussex, New Jersey, Charles Lain, owner of Pine Island Continues on page 24

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WTT

Sod Marketing from page 21

Turf Nursery, has been affected by competition but hurt badly by the lack of water. "It has pretty much shut the market off with restrictions," he says. Nevertheless, Lain's goal is to educate people why they should have sod and he does this with advertising.

Charles Lain - "Every person should build a little into marketing and bring their price up.



"Too many are unaware of the importance of marketing," Lain says. "There's no comparison between the American farmers and any in the world in his ability to produce." Yet Lain estimates that 90 percent of agricultural farmers need to promote their business more and 70 percent of sod farmers don't do enough, if any, advertising.

Since the drought has hit, Lain has put half his acreage into vegetable crops to build up cash flow. He nearly doubled his marketing budget in 1980 and experienced 15 to 20 percent less sales. He doesn't blame it on his marketing techniques. having been in the field 10 years with Weyerhauser, but on the water restrictions. "I have no restrictions on irrigating on this end, but they are heavy on the other end.

Residents in Lain's New Jersey area are allowed 50 gallons per person per day. There is a \$10 fine for each time this limit is surpassed. Towns are enforcing it and promoting it through local papers. "I'm being a realist," says Lain about his change to vegetable crops. "The production of food has to take precedence over watering plants."

Lain will return to former marketing plans when water returns to his soil. In the meantime, he fears that some new growers who have not done much promoting will sell their sod cheaply.

He used to send six to eight mailings a year, which he thought were extremely successful in keeping his name in front of customers. Every letter told the value of sod over a seeded lawn. He also sent popular articles with information on sod, and belonged to many groups.

Continues on page 26





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Sod Marketing from page 24

"We're producers," he says. "It's time we realize it's up to the grower; we're the ones to promote it. We should be doing it on a national basis to show the value of sod. We're selling instant beauty, a perfect yard year-round."

"There is tremendous potential in the market, but we have to develop it. Too many farmers think of it (marketing) only when times are tight.



The largest eye-catcher Batavia Turf Farms uses stands off of the New York State Thruway. Competitors often hear, "Are you the ones with the sign on the highway?"

Nobody wants to see the sod industry go the way of the automobile industry in this country. However, when economic times are rough, people find substitutes for what seemed to have been always essentials. These are the times that consistent service and steady promotion become especially memorable in consumers' minds.

"You have to market when sales are down," says Bob Garey, ASPA's executive director. Garey says that in the good years many growers have not taken marketing seriously because they were afraid of getting calls for sod they didn't have to sell.

"Promotion is very critical," Garey continues. "Progressive companies are advertising earlier. There's a lot of impulse buying, homeowners looking." He doesn't see to much adverse effect from present conditions. Although housing is way down, large commercial buildings that will be finished soon will require much sod.

Steve Dearborn, a sod market representative for O.M. Scott & Sons, thinks that in the long term the slowdown will help sod growers by increasing their efficiency and boosting their marketing. Because of the slowdown and new competition, Dearborn says marketing is "the key to the future of the business."



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GROUND COVERS ADORN SURFACES IN SHADY, LOW MAINTENANCE AREAS

By Douglas Chapman, Horticulturist, Dow Gardens, Midland, MI

Ground covers are a real alternative for turf in sun or shade to reduce maintenance. Many shade-loving ground covers grow especially well around trees while not competing heavily with the tree or shrub for moisture and nutrients. Further, these ground covers don't require mowing, thus mower damage to trees is eliminated. A few of the outstanding shade-tolerant ground covers include Lily-of-the-Valley (Convallaria majalis), English Ivy (Hedera helix), Plantain Lilly (Hosta Species), Japanese Spurge (Pachysandra terminalis), Primrose (Primula species), and Periwinkle (Vinca minor). All of these ground covers are less competitive than turf; therefore, shallow-rooted dense trees, e.g. maple, Horse Chestnut, and beech, thrive when planted as companions.

Lilly-of-the-Valley (*Convallaria majalis*) is especially well suited to dense shade. The foliage is comprised of two large upright oval leaves, 8



Baltic ivy (*H. helix* 'Baltica'), an extremely hardy cover and a weak climber, grows in exposed areas and will remain evergreen throughout the harshest of winters. (Above)

Japanese Spurge (Pachysandra terminalis), one of the best ground covers for deep shade, complements this Redbud (Cercis conodensis) and shallow-rooted trees in the landscape. (Right) inches long and 1 to 3 inches in width. When planted, this ground cover quickly masses in, being particularly effective during summer, from mid-May thhrough early September. The fragrant flowers are waxy white and bell-like hanging off upright spikes. The spikes usually are as tall or slightly taller than the foliage. Flowering occurs from early May through mid-June, depending on how far north one tries planting these extremely hardy herbacious perennials. To keep these plants vigorous and dense, one should consider fertilizing once every three to four years. Although Lily-of-the-Valley will survive in partial sun, it thrives in full shade. The soil should be moist, deep, and fertile. The above requirements and characteristics make Lily-of-the-Valley extremely effective during the growing season as companions for many of our dense trees, e.g. maple, beech, and redbud. The main drawback with this plant is that a foliar disease often affects the



leaves during mid to late summer, causing yellowing and dieback, reducing the effectiveness of the dark green leaves. After the first frost, the plants die down to soil level, leaving the ground somewhat bare throughout the entire winter, but during the growing season, this is one of the most dense ground covers.

English Ivy (Hedera helix) is perfectly hardy as far north as central Michigan. It thrives in dense shade, being somewhat evergreen when planted in protected areas, such as the north or northeast side of buildings. English Ivy prefers a moistdeep-rich fertile soil and, again, is a good companion for many of the dense, yet lowland species, such as Red Maple, beech, and hawthorn. If grown north of Columbus, Ohio, winter protection is often required to reduce dieback or burning. English Ivy is a particularly effective ground cover when planted with narcissus or minor spring bulbs. Baltic Ivy (H. helix 'Baltica') is an extremely hardy form which is a weak climber. One can use Baltic Ivy in exposed areas and it will remain evergreen throughout the harshest of winters.

Plantain Lily (Hosta decora) is an herbacious perennial which thrives in semi- and full shade areas. The leaves start growing in late spring and provide dense, rich light green ground cover, 6 to 8 inches in height, for the entire growing season. Plantain Lily thrives in areas with moist, fertile well-drained soil. Usually, it is most effective as individual clumps that colous together. Blue flowers are borne on spikes about 18 inches long, flowering during early summer above the foliage. These 2-inch long bell-shaped flowers are a good contrast to the foliage and can be a welcome addition for the summer months. There are many cultivars of Hosta which are varigated, increasing the variability of textures and color.

Hall's Honeysuckle (Lonicera japonica 'Halliana') is an extremely vigorous ground cover which can effectively be used on hillsides or areas which are difficult to mow. It establishes rapidly but often escapes confinement; therefore, continuous pruning (restriction) is important if one does not want this aggressive ground cover to take over the entire landscape. It thrives in semi-shade or full sun areas. Hall's Honeysuckle roots readily in rich, well-drained fertile soil. It is not a good companion plant for small shrubs or trees as it is extremely vigorous and depletes the soil of moisture and nutrients. This aggressive characteristic can literally kill many of the small shrubs and trees. South of Detroit, Hall's Honeysuckle is semi-evergreen but is perfectly hardy north to Midland, Michigan. This ground cover should be used in mass plantings, e.g. as a substitute for turf on hillsides, with discretion.

Japanese Spurge (Pachysandra terminalis) is a perfectly hardy, lush evergreen ground cover,

reaching 6 to 10 inches in height with leaves 2 to 4 inches long. Flowering occurs during late April or early May. These white spikes are particularly effective as they are borne above the old foliage. By many, pachysandra is considered the most effective evergreen ground cover, but one must realize, it can be overused. It is an outstanding companion for shallow-rooted trees, such as magnolia, maple, beech, and Common Horsechestnut. It will do well in partial or dense shade. Pachysandra is particularly effective when narcissus are planted prior to its planting and allowed to grow up through. It thrives in deep-richfertile well-drained soil. Once established, pachysandra fills in rapidly.

Polyanthus Primrose (Primula polyantha) is another extremely effective ground cover which thrives in shady, moist areas. The leaves are tufted at the base, being a light green, somewhat feathery, dying back to the ground mid-summer, leaving bare ground for much of the growing season. Primrose break dormancy early in the spring, prior to tree bud break and, therefore, are extremely effective in woodsy or rock garden areas. The five-petal, light lobed flowers come in many different colors with pink and yellow being quite common. There are over 500 different species of primrose with the most commonly available ones including Primula polyantha, reaching 6 to 12 inches in height; Cowslip (P. veris), reaching 8 inches in height with deep yellow (very fragrant) flowers; and English Primrose (P. vulgaris), again, having sulphur-yellow flowers, 11/2 inches across, being very effective from mid-April through June. Primrose are particularly effective for intimate areas near water (ponds or streams).

Periwinkle (Vinca minor) is an extremely aggressive evergreen ground cover which thrives in semi-shade. It does well in fertile well-drained soil. It has blue flowers during mid-May and has a rich evergreen foliage which survives even when subjected to the rigors of winter. Periwinkle can be planted in almost any location. It is not a good companion for shallow-rooted plants but is extremely effective in large areas when used in mass plantings or as a companion for some of the deeper-rooted trees, e.g. oak and pine. Its dark, rich green foliage, which reaches 8 to 10 inches in height, is neat and effective with few disease or insect problems. There are many varieties, with 'Bowles' being the most readily available in the trade. A drawback of 'Bowles' variety of periwinkle is it is somewhat tufted, not nearly as aggressive a grower as is the species form.

All of the aforementioned ground covers thrive in semi or full shade and prefer moist, rich fertile soil. They are outstanding as companion plants to reduce maintenance while improving the micro climate, thus helping many trees thrive. **WTT**

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DRILL SEEDING STEEP SLOPES FOR ESTABLISHMENT OR INTERSEEDING

By Richard L. Brammer, General Superintendent, Reclamation Division, Randall & Blake, Inc., Littleton, Colorado. A speech presented during the 1981 Annual Meeting of the International Erosion Control Association.

As seeding contractors, Randall & Blake, Inc. have and will go to great efforts to plant seed into the soil using a drill. In the low precipitation areas that we often operate in, we need all of the help we can get to promote successful seedling establishment.

The prime reason for drill seeding is the positive placement and uniform dispersion of seed at a regulated depth into the soil where levels of moisture are more consistent and the actions of wind and water will not remove the seed from the treated area. These simple considerations provide for a more consistent stand of established plants versus any broadcast method and develop a seedling that is more drought hardy. The seedlings are rooted in the soil not on the top of the soil trying to root down into the surface.

Many people argue that in nature all seed is broadcasted in one way or another. This is a valid point; however, natural broadcasting of seed is very inefficient in terms of the amount of energy that a plant must expend in order to reproduce. A single plant may produce thousands of viable seeds. However, only a few of these may ever get the chance to germinate due to the uncertainty of being broadcasted into a habitat conducive to germination. In essence, drill seeding is an improvement upon natural seed dispersement by placing all of the seed into niches favorable to not only germination, but also a viable existence.

It is a common notion that doubling the seed application rate when broadcasting will obtain the same results as drill applications. Even if



Safety is primary. If the slope is too steep or too rocky, then use other methods of seeding.

this was always certain, it can be extremely cost ineffective when broadcasting with some native species that cost \$60.00 or \$120.00 per pound. The total seed cost could reach \$200.00 to \$300.00 per acre. From another standpoint, water for hydroseeding may be miles from the treatment site. Exposure of some seed (for example, blue grama) to even short periods of soaking will trigger germination, and that combination with powdery dry soils can be lethal in zeric areas. These factors all culminate in whether you have to go back and try again we want to give it the best shot the first time, especially when our work is the best testimony of our capabilities.

Throughout the plains and intermountain valleys of the western states "drill seeding" has been utilized as the major method of planting seed into the soil. It is not a new idea, as horse drawn seed drills can be found hiding around in farm lots. Improvements have been developed as agricultural trends and construction methods improve. The drill was improved upon following the dust bowl era and the Great Plains Program promoted returning marginal agricultural land back to its best use - grass lands. Reclamation along the Interstate Highway System increased the use of native grasses and likewise prompted further improvement of the drill. The Vegetative Rehabilitation and Equipment Workshop has improved the Rangeland Drill for use after forest fires and shrub land conversion to improve grazing capacities on native rangeland. But to date, there is still a gap in the commercial development of an "off the shelf" drill that will work with the native collected species (blue grama, little and big bluestem) and withstand the continual rigors of rocks, slopes and rough ground that are the result of mining or other extreme soil disturbances.

If you have seen one seed drill you have not seen them all. Some handle smooth seed, some trashy; some have 3 point hook-ups, some are towable; some work and some don't. Let's consider the types of feed systems. The simple open throat will feed smooth seeds (wheatgrasses, cereal crops and bluegrasses) and adjusts by opening or closing the plate in the bottom of the box. A picker wheel is required to feed the sticks and stems that are common with native collected seed (blue grama, galleta, bluestems). These systems are more complex to adjust and require some imagination to calibrate, such as adding filler materials like sawdust or peatmoss that will