Important Allergenic Grasses

The following ten sheets describe four of the most important allergenic grasses. There are many other allergenic species, and some are difficult to distinguish unless they are in bloom. Bermuda, Johnson and Timothy grasses are among those that are easily recognized in the field, the former two even before blooming.
Bermuda Grass

Genus/species  
*Cynodon dactylon*

Family  
*Poaceae*  
(includes all the grasses, including grains)

Distribution  
Southern half of US  
- W Oregon southward to SW California  
- SW California eastward to S Texas and S Florida  
- S Florida northward to SE New Hampshire  
- SE New Hampshire southwestward through central Kansas  
- Kansas northwestward to N California and W Oregon  
- Hawaii

Comments  
This grass, which is native to the savannas of eastern Africa, has been introduced and established in much of the world, including Bermuda from where it is thought to have been brought to the United States. It is commonly grown in warm areas of the US for use in lawns and pastures, but may become an invasive pest. However, Bermuda grass is a favorite for golf greens because its dense growth resists foot traffic and it can be maintained even when mown very closely. It is a perennial species spreading by roots, nodes of runners where they touch the ground, and by seed. Although it makes best development in warm humid areas, it can tolerate drought by becoming dormant. Bermuda grass has short narrow bluish-green leaves that turn brown during cold weather, being a “warm season” grass. The purplish flowering stems can grow over a foot tall, but are typically much shorter, and usually have about 4 to 6 fingerlike seedheads. Allergenically, it is considered one of three “Southern grasses” and while it is moderately cross-reactive with salt grass, it demonstrates low cross-reactivity with most other grasses.
Timothy Grass

Genus/species  *Phleum pratense*

Family  *Poaceae*  (includes all the grasses, including grains)

Distribution  Throughout US; reaches best development in northern half

Comments  Timothy grass, a clump-forming perennial grass introduced from Europe, is a rather tall species sometimes reaching more than five feet in height. Leaves may approach a foot in length and are about ¼” in width. The flower head resembles a small green “cat tail” about 2 to 6 inches in length, with purplish stamens often visible hanging along the sides. Blooming is typically in late spring or early summer. Timothy grass is prized for both pastures and for hay, and attains its best development in cool regions as it does not tolerate heat and drought. Reproduction is strictly by seed. This grass is one of the important “pasture grasses” from the standpoint of allergy.
**Kentucky Blue/June Grass**

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<tr>
<th>Genus/species</th>
<th><em>Poa pratensis</em></th>
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<td>Family</td>
<td>Poaceae (includes all the grasses, including grains)</td>
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**Distribution**
Throughout US except peninsular Florida, south Texas and most of intervening Gulf Coast; absent from some hot desert areas

**Comments**
Kentucky Blue Grass, also known as June Grass, was introduced from Europe and is naturalized throughout most of the US although it is possible that some populations are also native to North America. Its rather bluish-green leaves have resulted in the name “Bluegrass” for the region of Kentucky famous for its horse farms, where this species is common in pastures. It can be established using either seed or sod, and it may grow to be as tall as 24” although in lawns it may mature to only 6”. Leaves tend to have “boat-shaped” tips (that is, resembling the hull of a boat). Blooming of the pyramid-shaped inflorescence is primarily during mid spring. During warm summer weather it becomes dormant, but it resumes growth with cooler autumn weather. It grows best in cool, humid climates in rich soil not prone to drought. This is considered to be one of the most important allergy-causing plants and cross-reacts with many other species of grass.
Johnson Grass

**Genus/species**  *Sorghum halepense*

**Family**  Poaceae  (includes all the grasses, including grains)

**Distribution**  Southern two-thirds of US
- Central Nevada eastward through Nebraska
- Nebraska eastward to S Michigan and Massachusetts
- Massachusetts southward to S Florida
- S Florida to S Texas to SE California
- SE California to central Nevada
- Hawaii

**Comments**  Johnson grass is a rather large perennial grass introduced from the Mediterranean region that is related to the commercially-grown sorghum. It can get to be as tall as eight feet but is usually less than six. Leaves may reach 20 inches in length with a distinct white midvein, and may approach an inch in width. The flower head rather suggests a corn tassel but of more delicate proportions. Blooming is typically in late spring or early summer. Johnson grass attains its best development in warm regions and in rich moist soil. Reproduction can be achieved by seed or by aggressive vegetative spreading of underground rhizomes. This grass is one of the important “southern grasses” from the standpoint of allergy.