

Group A: Trees

1. Box Elder/Maple



2. Red Alder



3. Birch



4. Whit Ash



5. Black Walnut



6. Mountain Cedar



7. Western Mountain Pine



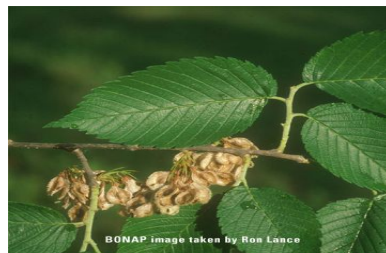
8. Cottonwood



9. Red Oak



10. Elm



Group B: Grasses

11. Redtop



12. Bermuda



13. Orchard Grass



14. Meadow Fescue



15. Perennial Ryegrass



16. Timothy



17. Kentucky Blue



18. Johnson



19. Cultivated Corn



20. Sweet Vernal



Group C: Weeds

21. Careless/Pigweed



22. Ragweed Mix



23. Mugwort/Sage



24. Lambs Quarters



25. Kochia



26. Marshelder/Poverty



27. English Plantain



28. Dock/Sorrel



29. Russian Thistle



30. Common Cocklebur



Outdoor Spores

31. *Alternaria*:

Specimens of *Alternaria* are often found growing on carpets, textiles and horizontal surfaces such as window frames. *Alternaria* is a dry spore and is commonly found in soil, outdoor air, on many kinds of plants and food products and prefers rotting farmland manure. It appears as a velvety tuft with long soft hairs and its color ranges from dark olive green to brown.

32. *Aspergillus Fumigatus*:

A saprotroph (involved in the processing of dead or decaying organic matter) widespread in nature, it is typically found in soil and decaying organic matter, such as compost heaps. Its spores are ubiquitous in the atmosphere, and it is estimated that everybody inhales several hundred spores each day; typically these are quickly eliminated by the immune system in healthy individuals. It is most commonly found during the fall and winter months.

33. *Aspergillus Niger*:

Aspergillus niger is a fungus and one of the most common species of the genus *Aspergillus*. It grows in black colonies and causes a disease called black mold on certain fruits and vegetables such as grapes, onions, and peanuts, and is a common contaminant of food. It is ubiquitous in soil and is commonly reported from indoor environments.

34. *Cephalosporium*:

Grey/green in color this mold is found in decomposing vegetation, and it is a soil inhabitant. It is also found in dust from textile plants, soil when gardening, bathrooms, and damp old houses. Certain strands are known to infect wheat.

35. *Hormodendrum Cladosporium*:

Depending on climatic conditions it may begin to appear in the atmosphere during the spring and rise to a peak in either late summer or early fall. *Cladosporium* is one of the most common colonisers of dying and dead plants and also occurs in various soil types, and on food. This mold is frequently found in unclean refrigerators, foodstuffs, on moist window frames, in houses with poor ventilation and straw roofs and situated in low, damp areas.

36. Helminthosorium:

This mold occurs seasonally and spores are released on dry, hot days. It is a parasite of cereals and grasses. Frequently found on grains, grasses, sugar cane, soil, and textiles. It is commonly found on celery and rooted vegetables. It has been known to cause asthma and other respiratory problems.

37. Mucor Racemosus:

This mold has worldwide distribution and is primarily a soil fungus but has been found in horse manure, plant remains, grains, vegetables, and nuts. In the tropics it is found at higher altitudes and often seen on soft fruit, fruit juice and marmalade. Mucor is also the dominating mold found in floor dust in houses, and is considered an indoor mold.

38. Stemphylium:

Existing mainly in the temperate northern hemisphere, it can be found in soil, moist wood or cellulose materials, on decomposing plants, and as pathogens on living plants (leaf spots are one example). Colonies grow rapidly, and appear velvety to cottony in texture; coloring is light brown or olive green to black. Though it is rare to find indoor colonization, it has been found in dust that is transferred in from outside, including dust on air filters. It is a known allergen causing hay fever, asthma and other Type I allergies.

39. Botrytis Cinerea:

It is parasitic on plants and soft fruits. Found in soil on houseplants and vegetables, it is also known as "gray mold". It causes leaf rot on grapes, strawberries, lettuce, etc. It is a well-known allergen, producing asthma type symptoms in greenhouse workers and the symptoms of "wine grower's lung".

40. Phoma Herbarium:

A common indoor air allergen that can cause hay fever, asthma, and a type of hypersensitivity pneumonitis commonly called "shower curtain disease" (shower surfaces being among those frequented by this fungal organism).

Indoor Environmentals

41. Penicillium:

Commonly found in soil, food, cellulose and grains. It is also found in paint and compost piles. It is commonly found in carpet, wallpaper, and in interior fiberglass duct insulation. It produces penicillin, a molecule that is used as an antibiotic, which kills or stops the growth of certain kinds of bacteria inside the body. Some species have a blue color, commonly growing on old bread and giving it a blue fuzzy texture. Penicillium species are present in the air and dust of indoor environments, such as homes and public buildings. The fungus can be readily transported from the outdoors, and grow indoors using building material or accumulated soil to obtain nutrients for growth. Penicillium growth can still occur indoors even if the relative humidity is low, as long as there is sufficient moisture available on a given surface.

42. Candida:

Commonly found in the air during wet periods in agricultural areas, candida is a genus of yeasts. Candida is an opportunistic fungus, which feeds primarily on sugars and other yeast-containing foods (foods that are aged, pickled, dried, fermented or cured). Recent research has directly shown that antibiotics and the resulting increased Candida colonization of the intestinal tract leads to an increase in airborne allergies. One study showed that mice given antibiotics had increased intestinal Candida colonization, which has been shown many times before, but also showed a concurrent increase in allergic responses to an airborne mold spore called *Aspergillus fumigatus*. This research is very important as it shows that alteration of gut flora with antibiotics can affect immune response and lead to an increased incidence of allergies.

43. Fusarium:

As a common soil fungus, it is found on a wide range of plants. It is often found in humidifiers. Several species in this genus can produce potent trichothecene toxins. The trichothecene (scirpene) toxin targets the following systems: circulatory, alimentary, skin, and nervous. Produces vomitoxin on grains during unusually damp growing conditions. Symptoms may occur either through ingestion

of contaminated grains or possibly inhalation of spores, and is capable of causing Type I allergies.

44. Epicoccum:

A common allergen, it is found in plants, soil, grains, textiles and paper products. Epicoccum grows rapidly and produces woolly to cottony or felty colonies on potatoes. The colonies are yellow to orange, orange to red or pink initially and become greenish brown to black by aging. Epicoccum is a "dry weather" spore more prevalent on dry, windy days, with counts higher in the late day.

45. Penicillium Notatum:

Penicillium notatum is very widely distributed in soils, occurring in the temperate zones in forests, grasslands and arable soils with comparable frequencies. It can be isolated from decaying vegetable and leaf litter. It is also found on stored cereals, and hay. The conidia are easily discharged into the air and are counted with high frequency in all aeromycological studies. It is also considered an important in-house mold. Indoors, Penicillium is the blue-green mold found on stale bread, fruits and nuts, and is used for production of green and blue mold cheese. Penicillium has no great seasonal variation but reaches peak concentrations in the winter and spring.

46. Rhizopus:

These spores are dispersed in hot, dry weather. It is frequently isolated from both forest and cultivated soils. It occurs in children's sandboxes. Typical microhabitats include fresh or decaying litter such as pine needles and leaves. It can be found in soil, decaying fruit and vegetables, animal feces, and old bread.

47. Epidermophyton:

Soil is considered as the natural habitat of Epidermophyton and is filamentous in nature. The colonies are usually grainy, have a suede-like texture, and may be olive, yellow, or yellow-brown in color. The central region is raised slightly. Can cause infections of skin (including ringworm) and nails.

48-49. DP Mite and DF Mite:

The European house dust mite (*Dermatophagoides pteronyssinus*) and the American house dust mite (*Dermatophagoides farinae*) are two different species, but are not necessarily confined to Europe or North America. Dust mites. They feed on organic detritus such as flakes of shed human skin and flourish in the stable environment of dwellings. House dust mites are a common cause of asthma and allergic symptoms worldwide. Allergens produced by house dust mites are among the most common triggers of asthma. Typical symptoms of house dust mite allergies are itchiness, sneezing, inflamed or infected eczema, watering/reddening eyes, sneezing repeatedly and frequently; e.g., on waking up sneezing 10 or more times, runny nose and clogging in the lungs.

50. Cockroach:

Cockroach allergen is believed to derive from feces, saliva and the bodies of these insects. People with chronic severe bronchial asthma are most likely to have cockroach allergy, also people with a chronic stuffy nose, skin rash, constant sinus infection, repeat ear infection and asthma. Symptoms include mildly itchy skin, scratchy throat or itchy eyes and nose. Or the allergy symptoms can become stronger, including severe, persistent asthma in some people. Asthma symptoms often are a problem all year, not just in some seasons. This can make it hard to determine that a cockroach allergy is the cause of the asthma. The National Heart, Lung, and Blood Institute recommends that all patients with persistent asthma be tested for allergic response to cockroach as well as to the other chief allergens, dust mites, cats, dogs and mold. Diagnosis can be made only by skin tests.