

RECAP OF NOVEMBER SPEAKER

Broadleaf P4 is a very effective water absorbing polymer that can be utilized to store water within soils and/or potting medias, under a variety of conditions for growing plants. P4 can be a very cost effective method of providing for an increase in water storage, if you are having problems supplying the needs of the growing plants, or if you have expensive water, if it is in short supply and if your media cannot hold sufficient water for plant use.

TO WHOM IT MAY CONCERN:

Golf Course Superintendent, _____
of the _____ recently
brought in, sent in plugs of turf
grass to us for the determination
of possible disease-causing
organisms.

Examination of the affected Poa
Annua revealed that they
manifested typical symptoms of a
vascular (=water-conducting
tissues) crown and root rot. In
other words, the main and lateral
roots showed a discoloration
which affected the central
cylinder of the roots. This
indicates that the water and
nutrient-conducting tissues of the

root (=xylem) are affected
internally with what appears to be
a fungal pathogen.

Unfortunately, this is an unknown
disease and we are only now
working on the possible cause. For
the first time, we were able to
reproduce the disease in the
greenhouse at Riverside by
inoculating healthy Poa Annua
plants with a pure culture of a
sterile fungus that we isolated
from diseased plants. The fungus
is sterile since it does not produce
spores. This suggests that the
fungus grows as threads (=
hyphae, mycelia) on the surface of
the roots and spreads slowly in
the soil by means of the threads
by root-to-root contact.
Apparently the fungus infects the
epidermal cells and the cortex of
the root (outside layers of the
root) and moves quickly into the
xylem or water and
nutrient-conducting tissues of the
root. The fungus multiplies in the
xylem and either plugs-up the
water- conducting tissues with
hyphae or produces a toxin which
poisons the roots and stunting,
yellowing, death of the lower
leaves and eventually death of the
affected plants especially under
conditions of stress such as high
temperatures and lack of water
(plugged xylem).

Since the fungus does not produce
spores, the spread from green to
green probably occurs by means

(con't. on page 7)