

TABLE 1.

TURFGRASS COLOR RATINGS FOR 2003 IN EAST LANSING, MI
FOLLOWING THE APPLICATION OF WETTING AGENTS.

TURFGRASS COLOR RATINGS ^a										
NAME	1 WEEK ^b	3 WEEKS	5 WEEKS	7 WEEKS	9 WEEKS	11 WEEKS	13 WEEKS	15 WEEKS	17 WEEKS	YEARLY AVE.
AQUEDUCT	9	7.0	6.8	7	7	7.0	6.3	6.8	6.3	7.0
BRILLIANCE	9	7.0	6.5	7	7	7.0	6.0	6.8	6.3	6.9
CASCADE PLUS	9	6.8	6.5	7	7	7.0	6.0	6.5	6.5	6.9
CONTROL	9	7.0	7.0	7	7	6.8	6.0	6.5	6.3	6.9
HYDRO-WET	9	7.0	7.8	7	7	7.0	6.8	6.8	6.8	7.2
LESCOFLO	9	7.0	6.8	7	7	7.0	6.0	6.8	6.8	7.0
NAIAD	9	7.0	6.8	7	7	7.3	6.3	6.5	6.5	7.0
PRIMER SELECT	9	7.0	7.5	7	7	7.0	6.0	6.8	6.5	7.1
RESPOND 2	9	7.0	6.8	7	7	7.0	6.3	6.8	6.5	7.0
SURFSIDE 37	9	7.0	7.0	7	7	7.0	6.3	6.5	6.5	7.0
TRICURE	9	7.0	8.0	7	7	7.0	6.3	6.8	6.5	7.2
LSD ^c	0	0.3	0.6	0	0	0.5	0.6	1.0	0.9	0.2
CV ^d (%)	0	2.2	6.0	0	0	3.0	5.3	5.8	5.7	1.6

a) Turfgrass color was visually rated using a scale of 1=brown, 5=medium green and 9=dark green.

b) Color ratings were taken every two weeks beginning one week after the initial wetting agent application which was made on June 16, 2003.

c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).

d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 2.

TURFGRASS QUALITY RATINGS FOR 2003 IN EAST LANSING, MI
FOLLOWING THE APPLICATION OF WETTING AGENTS.

TURFGRASS QUALITY RATINGS ^a										
NAME	1 WEEK ^b	3 WEEKS	5 WEEKS	7 WEEKS	9 WEEKS	11 WEEKS	13 WEEKS	15 WEEKS	17 WEEKS	YEARLY AVE.
AQUEDUCT	5.5	6.5	5.3	6.0	6.5	6.5	6.0	7.0	7.0	6.3
BRILLIANCE	5.3	6.3	5.0	6.3	6.5	6.5	6.3	6.5	6.5	6.1
CASCADE PLUS	4.5	5.0	4.0	5.5	6.0	5.8	5.5	6.0	6.0	5.4
CONTROL	5.5	4.8	4.0	4.5	4.3	4.0	3.8	4.0	4.3	4.3
HYDRO-WET	5.3	5.5	4.8	5.8	6.0	6.0	6.0	6.8	6.5	5.8
LESCOFLO	4.5	5.0	4.3	5.3	5.5	5.5	6.0	6.3	6.0	5.4
NAIAD	4.8	5.3	3.8	4.8	4.5	4.3	5.3	4.5	4.5	4.6
PRIMER SELECT	4.5	5.8	4.0	5.8	5.5	5.5	6.0	6.3	6.0	5.5
RESPOND 2	5.3	6.3	4.8	6.0	6.0	5.8	6.0	6.3	6.5	5.9
SURFSIDE 37	5.5	6.0	5.5	6.3	6.5	6.5	6.0	6.8	6.8	6.2
TRICURE	5.0	5.3	4.3	5.5	5.5	6.0	6.0	6.8	6.5	5.6
LSD ^c	3.1	2.3	4.0	3.5	3.0	3.2	2.4	2.4	2.2	2.8
CV ^d (%)	23.1	19.0	34.0	24.9	24.1	26.3	20.4	21.6	20.2	22.0

- a) Turfgrass quality was visually rated using a scale of 1=poor quality, 5=acceptable quality and 9=excellent quality.
- b) Turfgrass quality ratings were taken every two weeks beginning one week after the initial wetting agent application which was made on June 16, 2003.
- c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).
- d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 3.

PHYTOTOXICITY RATINGS FOR 2003 IN EAST LANSING, MI
 FOLLOWING THE APPLICATION OF WETTING AGENTS.
 THE INITIAL APPLICATION OF WETTING AGENTS WAS MADE ON JUNE 16, 2003.

PHYTOTOXICITY RATINGS^a

NAME	APP 1-1 ^b	APP 1-3	APP 1-7	APP 2-1	APP 2-3	APP 2-7	APP 3-1	APP 3-3	APP 3-7	APP 4-1	APP 4-3	APP 4-7	APP 5-1	APP 5-3	APP 5-7
AQUEDUCT	5.0	9	9	9	9	9	9	9	9	9	9	9	9	9	9
BRILLIANCE	6.0	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CASCADE PLUS	7.3	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CONTROL	5.8	9	9	9	9	9	9	9	9	9	9	9	9	9	9
HYDRO-WET	5.3	9	9	9	9	9	9	9	9	9	9	9	9	9	9
LESCOFLO	5.8	9	9	9	9	9	9	9	9	9	9	9	9	9	9
NAIAD	7.0	9	9	9	9	9	9	9	9	9	9	9	9	9	9
PRIMER SELECT	7.3	9	9	9	9	9	9	9	9	9	9	9	9	9	9
RESPOND 2	7.3	9	9	9	9	9	9	9	9	9	9	9	9	9	9
SURFSIDE 37	6.3	9	9	9	9	9	9	9	9	9	9	9	9	9	9
TRICURE	8.0	9	9	9	9	9	9	9	9	9	9	9	9	9	9
LSD ^c	3.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CV ^d (%)	27.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0

a) Phytotoxicity was visually rated using a scale of 1=brown or discolored turf, 7=acceptable damage and 9=green turf, no damage.

b) Phytotoxicity ratings were taken one, three and seven days after each application of any wetting agent. App 1-1 refers to application number one, the ratings were taken one day after application.

c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).

d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 3. (CONTINUED)

PHYTOTOXICITY RATINGS FOR 2003 IN EAST LANSING, MI
 FOLLOWING THE APPLICATION OF WETTING AGENTS.
 THE INITIAL APPLICATION OF WETTING AGENTS WAS MADE ON JUNE 16, 2003.

NAME	PHYTOTOXICITY RATINGS ^a														
	APP 6-1 ^b	APP 6-3	APP 6-7	APP 7-1	APP 7-3	APP 7-7	APP 8-1	APP 8-3	APP 8-7	APP 9-1	APP 9-3	APP 9-7	APP 10-1	APP 10-3	APP 10-7
AQUEDUCT	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
BRILLIANCE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CASCADE PLUS	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CONTROL	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
HYDRO-WET	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
LESCOFLO	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
NAIAD	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
PRIMER SELECT	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
RESPOND 2	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
SURFSIDE 37	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
TRICURE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
LSD ^c	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CV ^d (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

- a) Phytotoxicity was visually rated using a scale of 1=brown or discolored turf, 7=acceptable damage and 9=green turf, no damage.
- b) Phytotoxicity ratings were taken one, three and seven days after each application of any wetting agent. App 6-1 refers to application number six, the ratings were taken one day after application.
- c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).
- d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 4. WATER DROPLET PENETRATION TIMES BY DEPTH FOR 2003 IN EAST LANSING, MI
TWO WEEKS AFTER THE INITIAL APPLICATION OF WETTING AGENTS.
THE INITIAL APPLICATION OF WETTING AGENTS WAS MADE ON JUNE 16, 2003.

WATER DROPLET PENETRATION MEASURED IN SECONDS ^a						
NAME	0.5 CM ^b	1.5 CM	2.5 CM	3.5 CM	4.5 CM	5.5 CM
AQUEDUCT	15.5	68.0	260.8	245.0	233.5	257.5
BRILLIANCE	15.5	46.8	292.3	278.5	162.8	263.0
CASCADE PLUS	6.3	62.0	337.0	370.3	219.5	374.3
CONTROL	178.0	311.8	450.5	451.3	425.5	386.0
HYDRO-WET	68.3	194.0	314.0	259.8	260.3	258.5
LESCOFLO	56.8	117.5	361.3	320.0	319.8	283.5
NAIAD	83.5	213.3	330.3	312.3	347.3	369.0
PRIMER SELECT	100.8	154.8	306.8	286.5	262.3	341.3
RESPOND 2	102.5	225.0	308.0	330.5	370.8	365.5
SURFSIDE 37	37.8	271.5	335.0	355.0	372.3	339.0
TRICURE	115.8	198.5	285.0	255.8	299.8	280.5
LSD ^c	97.6	217.3	549.6	477.9	368.6	534.0
CV ^d (%)	84.4	70.8	59.7	56.8	53.4	59.5

a) The maximum time for water droplet penetration was 600 seconds. Any water droplet remaining after 600 seconds was recorded as 600 seconds.

b) Depth in centimeters below the soil surface.

c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).

d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 5. WATER DROPLET PENETRATION TIMES BY DEPTH FOR 2003 IN EAST LANSING, MI
FOUR WEEKS AFTER THE INITIAL APPLICATION OF WETTING AGENTS.
THE INITIAL APPLICATION OF WETTING AGENTS WAS MADE ON JUNE 16, 2003.

WATER DROPLET PENETRATION MEASURED IN SECONDS ^a						
NAME	0.5 CM ^b	1.5 CM	2.5 CM	3.5 CM	4.5 CM	5.5 CM
AQUEDUCT	86.3	164.3	342.5	350.8	361.3	374.5
BRILLIANCE	80.5	92.0	110.0	187.8	262.8	242.0
CASCADE PLUS	54.3	77.8	303.8	398.5	369.3	404.5
CONTROL	394.3	403.0	353.0	368.8	356.8	361.0
HYDRO-WET	121.8	256.3	300.5	316.8	369.5	361.3
LESCOFLO	25.8	75.3	241.5	307.3	402.0	469.8
NAIAD	373.3	395.5	423.0	388.0	429.0	392.3
PRIMER SELECT	268.3	524.8	486.3	528.3	554.0	532.8
RESPOND 2	274.5	345.8	307.0	322.8	297.0	319.5
SURFSIDE 37	236.3	362.8	266.5	226.5	168.8	171.0
TRICURE	257.0	423.8	433.5	452.3	509.8	460.8
LSD ^c	210.3	234.0	268.8	373.2	397.3	392.0
CV ^d (%)	68.5	54.6	44.8	49.2	50.4	49.0

- a) The maximum time for water droplet penetration was 600 seconds. Any water droplet remaining after 600 seconds was recorded as 600 seconds.
- b) Depth in centimeters below the soil surface.
- c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).
- d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 6. WATER DROPLET PENETRATION TIMES BY DEPTH FOR 2003 IN EAST LANSING, MI
EIGHT WEEKS AFTER THE INITIAL APPLICATION OF WETTING AGENTS.
THE INITIAL APPLICATION OF WETTING AGENTS WAS MADE ON JUNE 16, 2003.

WATER DROPLET PENETRATION MEASURED IN SECONDS ^a						
NAME	0.5 CM ^b	1.5 CM	2.5 CM	3.5 CM	4.5 CM	5.5 CM
AQUEDUCT	94.5	216.8	215.0	256.5	203.8	270.0
BRILLIANCE	94.3	107.0	134.5	112.8	70.3	64.5
CASCADE PLUS	85.3	133.8	109.5	226.8	213.0	244.0
CONTROL	175.8	353.0	350.5	396.0	389.8	385.3
HYDRO-WET	60.5	159.0	217.5	189.5	187.0	269.5
LESCOFLO	47.3	79.8	232.0	242.5	256.0	192.5
NAIAD	142.8	144.8	124.8	113.7	109.5	177.3
PRIMER SELECT	35.3	114.3	285.5	288.3	275.3	381.0
RESPOND 2	207.8	253.0	382.8	250.7	332.8	257.5
SURFSIDE 37	181.8	236.3	240.8	272.5	207.5	253.5
TRICURE	56.5	193.5	269.8	253.0	312.5	302.8
LSD ^c	158.5	316.8	375.3	491.5	395.8	349.1
CV ^d (%)	79.3	78.7	71.9	78.8	76.4	63.5

a) The maximum time for water droplet penetration was 600 seconds. Any water droplet remaining after 600 seconds was recorded as 600 seconds.

b) Depth in centimeters below the soil surface.

c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).

d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 7. WATER DROPLET PENETRATION TIMES BY DEPTH FOR 2003 IN EAST LANSING, MI
 12 WEEKS AFTER THE INITIAL APPLICATION OF WETTING AGENTS.
 THE INITIAL APPLICATION OF WETTING AGENTS WAS MADE ON JUNE 16, 2003.

WATER DROPLET PENETRATION MEASURED IN SECONDS ^a						
NAME	0.5 CM ^b	1.5 CM	2.5 CM	3.5 CM	4.5 CM	5.5 CM
AQUEDUCT	74.0	280.5	394.8	317.0	328.0	234.7
BRILLIANCE	368.5	398.3	384.3	402.3	410.0	335.8
CASCADE PLUS	230.8	395.5	367.8	304.5	232.0	307.3
CONTROL	296.0	372.5	407.3	315.5	321.3	383.0
HYDRO-WET	93.3	307.0	257.5	287.5	312.3	339.5
LESCOFLO	285.8	392.0	470.0	406.8	395.0	416.8
NAIAD	405.5	487.0	502.5	406.0	317.8	321.5
PRIMER SELECT	80.3	170.5	366.3	258.3	297.8	195.3
RESPOND 2	284.8	542.8	422.5	465.3	398.8	506.8
SURFSIDE 37	460.0	518.5	429.0	319.5	314.3	292.0
TRICURE	150.0	278.0	446.8	435.3	311.3	339.5
LSD ^c	159.5	293.1	271.2	325.6	332.5	290.3
CV ^d (%)	44.9	42.1	30.1	39.2	39.5	38.1

a) The maximum time for water droplet penetration was 600 seconds. Any water droplet remaining after 600 seconds was recorded as 600 seconds.

b) Depth in centimeters below the soil surface.

c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).

d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 8. WATER DROPLET PENETRATION TIMES BY DEPTH FOR 2003 IN EAST LANSING, MI
 16 WEEKS AFTER THE INITIAL APPLICATION OF WETTING AGENTS.
 THE INITIAL APPLICATION OF WETTING AGENTS WAS MADE ON JUNE 16, 2003.

WATER DROPLET PENETRATION MEASURED IN SECONDS ^a						
NAME	0.5 CM ^b	1.5 CM	2.5 CM	3.5 CM	4.5 CM	5.5 CM
AQUEDUCT	25.3	96.3	214.0	319.3	316.8	317.8
BRILLIANCE	27.5	35.8	155.0	263.0	289.8	230.5
CASCADE PLUS	174.0	252.5	249.3	229.8	235.8	266.3
CONTROL	189.5	279.3	333.5	326.8	362.3	346.8
HYDRO-WET	54.0	155.0	199.5	210.0	207.8	210.8
LESCOFLO	185.0	201.5	236.0	234.5	214.3	278.3
NAIAD	323.5	465.8	441.3	420.3	379.8	367.8
PRIMER SELECT	58.0	134.0	212.3	227.8	219.0	337.5
RESPOND 2	244.8	374.5	322.5	422.3	369.3	380.3
SURFSIDE 37	164.5	330.5	387.0	402.3	375.8	296.8
TRICURE	30.5	50.5	125.0	103.0	226.0	267.5
LSD ^c	158.2	201.7	398.1	440.2	544.8	558.3
CV ^d (%)	76.7	62.0	69.2	67.8	70.8	66.5

a) The maximum time for water droplet penetration was 600 seconds. Any water droplet remaining after 600 seconds was recorded as 600 seconds.

b) Depth in centimeters below the soil surface.

c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).

d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 9. YEARLY AVERAGE WATER DROPLET PENETRATION TIMES BY DEPTH FOR 2003 IN EAST LANSING, MI AFTER THE APPLICATION OF WETTING AGENTS.

WATER DROPLET PENETRATION MEASURED IN SECONDS ^a						
NAME	0.5 CM ^b	1.5 CM	2.5 CM	3.5 CM	4.5 CM	5.5 CM
AQUEDUCT	59.1	165.2	285.4	297.7	288.7	297.3
BRILLIANCE	117.3	136.0	215.2	248.9	239.1	227.2
CASCADE PLUS	110.1	184.3	273.5	306.0	253.9	319.3
CONTROL	246.7	343.9	379.0	371.1	371.1	372.4
HYDRO-WET	79.6	214.3	257.8	252.7	267.4	287.9
LESCOFLO	120.1	173.2	308.2	302.2	317.4	328.2
NAIAD	265.7	341.3	364.4	332.8	316.7	325.6
PRIMER SELECT	108.5	223.6	331.4	317.8	321.7	372.6
RESPOND 2	222.9	348.2	348.6	369.0	353.7	365.9
SURFSIDE 37	216.1	343.9	331.7	315.2	287.7	270.5
TRICURE	122.0	228.9	312.0	299.9	331.9	330.2
LSD ^c	67.3	104.2	198.7	236.0	243.8	211.3
CV ^d (%)	32.2	29.2	29.1	30.3	32.1	28.7

- a) The maximum time for water droplet penetration was 600 seconds. Any water droplet remaining after 600 seconds was recorded as 600 seconds.
- b) Depth in centimeters below the soil surface.
- c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).
- d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.

TABLE 10.

DEW FORMATION/CONTROL RATINGS FOR 2003 IN EAST LANSING, MI
FOLLOWING THE APPLICATION OF WETTING AGENTS.

DEW FORMATION/CONTROL RATINGS ^a								
NAME	DEW 1 ^b	DEW 2	DEW 3	DEW 4	DEW 5	DEW 6	DEW 7	YEARLY AVE.
AQUEDUCT	5.8	5.5	5.3	1.5	1.0	9.0	6.5	4.9
BRILLIANCE	5.0	4.5	6.0	1.0	1.0	9.0	1.0	3.9
CASCADE PLUS	4.0	4.5	3.3	2.0	1.0	8.5	1.0	3.5
CONTROL	5.5	4.5	4.3	1.0	1.0	7.8	1.0	3.6
HYDRO-WET	4.5	4.0	6.0	4.3	4.3	9.0	6.3	5.5
LESCOFLO	3.5	3.3	3.8	4.5	1.0	9.0	1.0	3.7
NAIAD	4.5	4.5	4.8	4.5	1.0	9.0	6.8	5.0
PRIMER SELECT	5.5	5.0	4.8	1.0	8.3	8.0	1.0	4.8
RESPOND 2	4.5	3.8	6.5	1.0	1.0	9.0	1.0	3.8
SURFSIDE 37	6.3	6.8	6.3	3.5	2.3	8.8	2.5	5.2
TRICURE	3.0	2.8	4.8	1.0	9.0	8.0	1.0	4.2
LSD ^c	5.2	7.9	6.0	4.9	1.9	0.7	1.3	2.1
CV ^d (%)	45.5	67.3	48.6	106.8	51.3	5.2	36.3	25.1

a) Dew formation/control was visually rated using a scale of 1=heavy dew present and 9=no dew present.

b) Dew formation/control ratings were taken on various dates following the application of wetting agents.

c) LSD is the least significant difference among the treatment means. To determine if one treatment is significantly different from another, subtract the mean of one treatment from the mean of another treatment. A statistically significant difference occurs when this value is larger than the LSD value given at the bottom of the column. Treatment means should be compared only within a column (LSD 0.05).

d) CV is the coefficient of variation and indicates the percent variation of the treatment means in each column.