

Strongly Contrasting Particle-Size Classes

The purpose of strongly contrasting particle-size classes is to identify changes in pore-size distribution or composition that are not identified in higher soil categories and that seriously affect the movement and retention of water and/or nutrients.

The following particle-size or substitute classes are considered strongly contrasting if both parts are 12.5 cm or more thick (including parts not in the particle-size control section; however, substitute class names are used only if the soil materials to which they apply extend 10 cm or more into the upper part of the particle-size control section) and if the transition zone between the two parts of the particle-size control section is less than 12.5 cm thick.

Some classes, such as sandy and sandy-skeletal, have been combined in the following list. In those cases the combined name is used as the family class if part of the control section meets the criteria for either class.

1. Ashy over clayey
2. Ashy over clayey-skeletal
3. Ashy over loamy-skeletal
4. Ashy over loamy
5. Ashy over medial-skeletal
6. Ashy over medial (if the water content at 1500 kPa tension in dried samples of the fine-earth fraction is 10 percent or less for the ashy materials and 15 percent or more for the medial materials)
7. Ashy over pumiceous or cindery
8. Ashy over sandy or sandy-skeletal
9. Ashy-skeletal over fragmental or cindery (if the volume of the fine-earth fraction is 35 percent or more [absolute] greater in the ashy-skeletal part than in the fragmental or cindery part)
10. Ashy-skeletal over loamy-skeletal
11. Ashy-skeletal over sandy or sandy-skeletal
12. Cindery over loamy
13. Cindery over medial-skeletal
14. Cindery over medial
15. Clayey over fragmental
16. Clayey over loamy (if there is an absolute difference of 25 percent or more between clay percentages of the fine-earth fraction in the two parts of the control section)
17. Clayey over loamy-skeletal (if there is an absolute difference of 25 percent or more between clay percentages of the fine-earth fraction in the two parts of the control section)
18. Clayey over sandy or sandy-skeletal
19. Clayey-skeletal over sandy or sandy-skeletal
20. Coarse-loamy over clayey
21. Coarse-loamy over fragmental
22. Coarse-loamy over sandy or sandy-skeletal (if the coarse-loamy material contains less than 50 percent fine sand or coarser sand)
23. Coarse-silty over clayey
24. Coarse-silty over sandy or sandy-skeletal
25. Fine-loamy over clayey (if there is an absolute difference of 25 percent or more between clay percentages of the fine-earth fraction in the two parts of the control section)
26. Fine-loamy over fragmental
27. Fine-loamy over sandy or sandy-skeletal
28. Fine-silty over clayey (if there is an absolute difference of 25 percent or more between clay percentages of the fine-earth fraction in the two parts of the control section)
29. Fine-silty over fragmental
30. Fine-silty over sandy or sandy-skeletal
31. Hydrous over clayey-skeletal
32. Hydrous over clayey
33. Hydrous over fragmental
34. Hydrous over loamy-skeletal
35. Hydrous over loamy
36. Hydrous over sandy or sandy-skeletal
37. Loamy over ashy or ashy-pumiceous
38. Loamy over sandy or sandy-skeletal (if the loamy material contains less than 50 percent fine sand or coarser sand)
39. Loamy over pumiceous or cindery
40. Loamy-skeletal over cindery (if the volume of the fine-earth fraction is 35 percent or more [absolute] greater in the loamy-skeletal part than in the cindery part)
41. Loamy-skeletal over clayey (if there is an absolute difference of 25 percent or more between

clay percentages of the fine-earth fraction in the two parts of the control section)

42. Loamy-skeletal over fragmental (if the volume of the fine-earth fraction is 35 percent or more [absolute] greater in the loamy-skeletal part than in the fragmental part)

43. Loamy-skeletal over sandy or sandy-skeletal (if the loamy material has less than 50 percent fine sand or coarser sand)

44. Medial over ashy (if the water content at 1500 kPa tension in dried samples of the fine-earth fraction is 15 percent or more for the medial materials and 10 percent or less for the ashy materials)

45. Medial over ashy-pumiceous or ashy-skeletal (if the water content at 1500 kPa tension in dried samples of the fine-earth fraction is 15 percent or more for the medial materials and 10 percent or less for the ashy part)

46. Medial over clayey-skeletal

47. Medial over clayey

48. Medial over fragmental

49. Medial over hydrous (if the water content at 1500 kPa tension in undried samples of the fine-earth fraction is 75 percent or less for the medial materials)

50. Medial over loamy-skeletal

51. Medial over loamy

52. Medial over pumiceous or cindery

53. Medial over sandy or sandy-skeletal

54. Medial-skeletal over fragmental or cindery (if the volume of the fine-earth fraction is 35 percent or more [absolute] greater in the medial-skeletal part than the fragmental or cindery part)

55. Medial-skeletal over loamy-skeletal

56. Medial-skeletal over sandy or sandy-skeletal

57. Pumiceous or ashy-pumiceous over loamy

58. Pumiceous or ashy-pumiceous over loamy-skeletal

59. Pumiceous or ashy-pumiceous over medial-skeletal

60. Pumiceous or ashy-pumiceous over medial

61. Pumiceous or ashy-pumiceous over sandy or sandyskeletal

62. Sandy over clayey

63. Sandy over loamy (if the loamy material contains less than 50 percent fine sand or coarser sand)

64. Sandy-skeletal over loamy (if the loamy material contains less than 50 percent fine sand or coarser sand)