

Land Capability Class – MLRAs 53A, 53B, 55B, 55C – East Central

LCU	Capability Class Descriptions
IIc1	Deep, loamy, well to moderately well-drained soils on bottom lands that sometimes receive beneficial overflow. However, moisture is still inadequate in most years. These soils have moderate wind erosion hazard.
IIc2	Deep, and moderately deep, loamy, well-drained soils on nearly level (zero to two percent) uplands. Moisture is inadequate in most years and these soils have slight to moderate wind erosion hazard.
IIc3	Deep, loamy, well to moderately well-drained soils on nearly level (zero to two percent) upland swales that receive beneficial moisture. However, moisture is still inadequate in most years.
IIe1	Deep and moderately deep, loamy soils on gently sloping (two to six percent) uplands. They have moderate wind and water erosion hazards.
IIe2	Deep, loamy soils on gently undulating (two to six percent) upland slopes. They have moderate wind and water erosion hazards.
IIe3	Deep, loamy soils on (two to six percent) slopes of upland swales that receive extra moisture. However, moisture is still inadequate. They have a moderate water erosion hazard.
IIe4	Deep, loamy, moderately well and somewhat poorly drained, very limy soils on nearly level (zero to two percent) uplands. They have moderate to severe wind erosion hazard.
IIe5	Deep and moderately deep, loamy soils with saline substrata on gently sloping (two to six percent) uplands. Growth of salt sensitive plants is reduced. They have slight to moderate wind and water erosion hazards.
IIe6	Deep, and moderately deep, loamy, well-drained and moderately well-drained soils with fine sandy loam surface layers on nearly level (zero to two percent) uplands. Moisture is inadequate in most years and these soils have a moderate wind erosion hazard.
IIs1	Deep, well to moderately well-drained soils with loamy to clayey surfaces and clayey or claypan subsoils. Slopes are nearly level (zero to two percent). Clay subsoils limits rooting, water intake, and moisture release to plants. These soils have a moderate wind erosion hazard.
IIs3	Deep, and moderately deep, loamy, well-drained soils with saline substrata on nearly level (zero to two percent) uplands. Growth of salt sensitive plants is reduced. Moisture is inadequate in most years and these soils have slight to moderate wind erosion hazard.
IIw1	Deep, loamy, somewhat poorly to poorly drained soils on flat slopes and in depressions. Choice of crops and time of tillage are sometimes limited by wetness.
IIw2	Deep, loamy, poorly drained, limy, nearly level soils on bottom lands. High water table and occasional flooding influences choice of plants and time of tillage.
IIw3	Deep, loamy, poorly drained, very limy soils on nearly level slopes or in slight depressions. Choice of plants is limited by the high water table and lime.
IIIe1	Deep and moderately deep, loamy soils on sloping (6 to 9 percent) uplands. They have moderate to severe water and moderate wind erosion hazards.
IIIe2	Deep, loamy soils on undulating (six to nine percent) uplands and eroded soils on gently undulating (two to six percent) uplands. They have moderate to severe water and moderate wind erosion hazards.
IIIe3	Deep, loamy and clayey soils on gently sloping and gently undulating (two to six percent) uplands. These soils have clayey or claypan subsoils that restrict root and water penetration. They have moderate to severe water and slight to moderate wind erosion hazards.
IIIe4	Deep and moderately deep, clayey soils on gently sloping (two to six percent) uplands. The clayey texture retards root growth and water intake. They have moderate to severe wind and water erosion hazards.
IIIe5	Deep, loamy, calcareous soils on nearly level (zero to two percent) uplands. The surface layer is thin and the subsoil is very limy. These soils have a severe wind erosion hazard.
IIIe6	Soils with 20 to 40 inches of loamy material over sand and gravel on gently sloping (two to six percent) uplands. The porous substrata limits water storage capacity and rooting depths. These soils have moderate wind and water erosion hazards.
IIIe7	Deep and moderately deep, moderately sandy soils on nearly level (zero to two percent) uplands. They have a severe wind erosion hazard.
IIIe8	Deep and moderately deep, moderately sandy soils on gently undulating (two to six percent)

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	uplands and eroded phases of these soils on nearly level (zero to two percent) uplands. They have a severe wind erosion hazard.
IIIe9	Moderately sandy soils with sand and gravel or sandstone at 20 to 40 inches. These soils are on nearly level (zero to two percent) uplands. They have a severe wind erosion hazard.
IIIe10	Moderately sandy soils with sand and gravel or sandstone at 20 to 40 inches. These soils are on gently sloping (two to six percent) uplands. They have severe wind and moderate water erosion hazards.
IIIe11	Deep, loamy, moderately well-drained, very limy soils on gently undulating (two to six percent) uplands. These soils have severe wind and moderate water erosion hazards.
IIIe12	Deep and moderately deep, loamy soils with limy subsoils on gently undulating and gently sloping (two to six percent) uplands. They have moderate to severe wind and water erosion hazards.
IIIe14	Deep, moderately sandy, somewhat poorly drained soils with very sandy, limy subsoils and a seasonal water table. They occur on nearly level (zero to two percent) uplands. They have a severe wind erosion hazard.
IIIe15	Deep, loamy and clayey soils on gently sloping and gently undulating (two to six percent) uplands. These soils have claypan subsoils that restrict root and water penetration. They have moderate to severe water and slight to moderate wind erosion hazards.
IIIIs1	Deep, loamy soils on nearly level (zero to two percent) uplands that have claypan subsoils. The clayey subsoils restrict rooting, water penetration, and water release to plants. They have a slight to moderate wind erosion hazard.
IIIIs2	Soils with 20 to 40 inches of loamy material over sand and gravel on nearly level (0 to 2 percent) uplands. The porous substrata limits water storage capacity and rooting depth. These soils have a moderate wind erosion hazard.
IIIIs3	Deep and moderately deep, very clayey soils on nearly level (zero to two percent) uplands. Water penetration, rooting, and water uptake by plants is limited by the clayey texture. These soils have moderate to severe wind erosion hazard.
IIIIs4	Somewhat poorly drained or moderately well-drained, limy soils with 20 to 40 inches of loamy material over sand and gravel or soft chalkrock. These soils are on nearly level (zero to two percent) uplands. They have a seasonal water table and moderate to severe wind erosion hazard.
IIIIs5	Loamy soils with siltstone substrata at 20 to 40 inches on nearly level (0 to 2 percent) uplands. Very limy or clayey subsoils or siltstone substrata limits root development. They have a moderate to severe wind erosion hazard.
IIIIs6	Deep, loamy, moderately well and somewhat poorly drained, very limy soils with saline substrata on nearly level (zero to two percent) uplands. The high lime content of the soils reduces the availability of some plant nutrients. Salinity limits crop selection. These soils have severe wind and moderate water erosion hazards.
IIIw2	Deep, clayey, poorly drained soils in depressions that are ponded by runoff water. Land operations are often delayed by wetness and choice of crops may be limited.
IIIw3	Deep, clayey, poorly drained soils on low flood plains of major streams. These soils are frequently flooded and operations are delayed in most years due to wetness.
IIIw4	Deep, somewhat poorly drained soils with silty surfaces and claypan subsoils in depressions. Tillage operations are frequently delayed.
IIIw5	Deep, moderately sandy, somewhat poorly drained soils on flood plains and in slight depressions. These soils have seasonal water tables. Tillage and choice of crops may be affected by wetness. These soils have moderate to severe wind erosion hazard.
IVe1	Deep and moderately deep, loamy soils on rolling (9 to 15 percent) uplands and eroded soils on undulating (6 to 9 percent) uplands. These soils have severe water erosion and moderate wind erosion hazards.
IVe2	Deep, loamy soils on gently undulating and gently sloping (two to six percent) uplands. These soils have thin, limy surfaces. They have severe wind erosion and moderate water erosion hazards.
IVe3	Deep and moderately deep, loamy soils on undulating and sloping (six to nine percent) uplands and eroded soils on gently undulating and gently sloping (two to six percent)

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	uplands. These soils have thin limy surface layers. They have severe wind and water erosion hazards.
IVe4	Deep and moderately deep, clayey soils on sloping (six to nine percent) uplands. The clayey texture retards root growth and water intake. These soils have severe water and moderate to severe wind erosion hazards.
IVe5	Soils with 20 to 40 inches of loamy material over sand and gravel on sloping (6 to 9 percent) uplands. The porous substrata limits root growth and water storage capacity. These soils have moderate to severe wind and water erosion hazards.
IVe6	Soils with 10 to 20 inches of loamy material over sand and gravel on gently sloping (two to six percent) uplands. The porous substrata limits rooting and water storage capacity. These soils have moderate wind and water erosion hazards.
IVe7	Deep, loamy and clayey soils on sloping or undulating (six to nine percent) uplands. These soils have clayey or claypan subsoils that restrict rooting and water penetration. They have moderate wind and severe water erosion hazards.
IVe8	Deep and moderately deep, moderately sandy soils on undulating or sloping (six to nine percent) uplands, and eroded soils on gently undulating or gently sloping (two to six percent) uplands. These soils have severe wind and moderate water erosion hazards.
IVe9	Deep, sandy soils on nearly level and gently undulating (zero to six percent) uplands. They have very severe wind erosion hazards.
IVe10	Deep, sandy, somewhat poorly drained soils on nearly level and gentle slopes (zero to six percent). They have a seasonally high water table. The wind erosion hazard is very severe.
IVe13	Deep, well to moderately well-drained soils with sandy surfaces and firm, compact, loamy subsoils. They occupy nearly level to gently sloping (zero to six percent) uplands and basins. They have very severe wind erosion hazards.
IVs1	Soils with 10 to 20 inches of loamy material over sand and gravel on nearly level (0 to 2 percent) uplands. The porous substrata limits rooting and water storage capacity. These soils have moderate wind erosion hazards.
IVs2	Moderately well and well-drained soils with 4 to 10 inches of friable, loamy surface layers over dense, very slowly permeable, claypan subsoils that contain salts. They occur in nearly level (zero to two percent) upland swales and on uplands. The claypan subsoil restricts rooting, water penetration, and water release to plants. Choice of plants is limited.
IVs3	Moderately well-drained soils with 4 to 10 inches of friable, loamy surface over dense, very slowly permeable, claypan subsoils that contain salts. They occupy gently sloping and gently undulating (two to six percent) uplands. The claypan subsoil restricts rooting, water penetration, and water release to plants. Choice of plants is limited. They have a moderate water erosion hazard.
IVs4	Deep, somewhat poorly drained soils with 4 to 10 inches of friable, loamy surface over dense very slowly permeable claypan subsoils that contain salts. They are on level floodplains that are occasionally flooded. The claypan subsoil restricts rooting, water penetration, and water release to plants. Choice of plants is limited. These soils have a moderate wind erosion hazard.
IVw1	Deep, loamy, poorly drained, soils on bottom lands and in depressions. An intermittent water table and occasional flooding, or ponding severely limits use.
IVw2	Deep, sandy, poorly drained, soils in nearly level swales and depressions in sandy uplands. The seasonal water table, within 10 to 20 inches of the surface, severely limits use. These soils have a severe wind erosion hazard.
IVw3	Deep, loamy, poorly drained, very limy soils on floodplains and adjacent lakes and depressions on uplands. The high water table, seasonal flooding and lime severely limits use. The high content of lime in the soil reduces the availability of some plant nutrients. They have a moderate wind erosion hazard.
IVw4	Deep, loamy and clayey, poorly drained, saline soils on floodplains. The high water table, seasonal flooding and salinity severely limits use. Only salt tolerant crops should be planted. They have a moderate wind erosion hazard.
Vw1	Very poorly drained loam soils in low bottoms and depressions. The water table is at or near the surface during most of the growing season. These soils are too wet for crops but may be

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	used for tame grasses.
Vw3	Very poorly and poorly drained sandy soils in depressions and on bottoms with water tables at or near the surface during much of the growing season. These soils are too wet for crops but may be suited to tame grasses.
Vw4	Very poorly drained and poorly drained loamy and clayey soils in depressions. These soils are ponded or have water tables at or near the surface. More than 50 percent of the vegetation is suitable for grazing.
Vle1	Deep and moderately deep, loamy soils on hilly (15 to 25 percent) uplands and eroded soils on rolling (9 to 15 percent) uplands. Severe water erosion hazard and excessive runoff make these soils unsuited for cultivation.
Vle2	Deep and moderately deep, loamy soils on very steep (25 to 40 percent) uplands. Excessive runoff and severe water erosion hazards make these soils unsuited for cultivation.
Vle3	Deep and moderately deep, loamy soils on rolling to hilly (9 to 25 percent) uplands and eroded soils on rolling (6 to 15 percent) uplands. These soils have thin surface layers and severe wind and water erosion hazards. They are not suited for cultivated crops.
Vle4	Deep and moderately deep, clayey soils on rolling to hilly (9 to 25 percent) uplands. Excess runoff and severe water erosion hazards make these soils unsuited for cultivation.
Vle5	Moderately deep and shallow soils with 10 to 40 inches of loamy material over sand and gravel on sloping to hilly (6 to 25 percent) uplands. The porous substrata limits rooting and moisture storage capacity. These soils have a severe water erosion hazard. They are not suited for cultivation.
Vle6	Deep and moderately deep, moderately sandy soils on rolling to hilly (9 to 25 percent) uplands and eroded soils on undulating (6 to 9 percent) uplands. These soils have severe wind and water erosion hazards. They are not suited for cultivation.
Vle7	Deep, sandy and very sandy soils on gently undulating to rolling (2 to 15 percent) uplands. These soils have very severe wind erosion hazards. They are not suited for cultivation.
Vle8	Deep, sandy soils on nearly level (zero to two percent) bottom lands. These soils have severe wind erosion hazards. They are not suited for cultivation.
Vle9	Moderately well-drained soils with 4 to 10 inches of friable, loam surface over dense, very slowly permeable claypan subsoils that contain salts on sloping (6 to 9 percent) uplands. They have severe water erosion hazard. These soils are not suited for cultivation.
Vle10	Shallow, sandy soils on nearly level to moderately steep (0 to 25 percent) uplands. These soils have severe wind and water erosion hazards. They are not suited for cultivation.
Vle11	Shallow silty and loamy soils over soft bedrock on nearly level to moderately steep (0 to 25 percent) uplands. These soils have a severe water erosion hazard and limited rooting depth. They are not suited for cultivation.
Vle12	Shallow, clayey soils on gently sloping to moderately steep (3 to 25 percent) uplands. These soils have a severe water erosion hazard and limited rooting depth. These soils are not suited for cultivation.
Vle13	Deep and moderately deep, loamy soils on moderately sloping to moderately steep (6 to 25 percent) uplands. These soils have a severe water erosion hazard. They are not suited for cultivation.
Vls1	Well, moderately well, and somewhat poorly drained soils on nearly level to sloping (zero to nine percent) uplands. Dense, compact subsoils near the surface, salts, or a combination of these limitations make these soils generally unsuited for cultivation.
Vls2	Shallow, loamy soils over hard bedrock on nearly level to moderately steep (0 to 25 percent) uplands. Rooting depth and water penetration is limited. These soils are not suited for cultivation.
Vls4	Soils with 6 to 20 inches of loamy material over sand and gravel on nearly level to hilly (0 to 25 percent) slopes. The porous substrata limits rooting and water storage capacity. These soils are not suited for cultivation.
Vls5	Dense clay soils containing masses of salts in the subsoil on nearly level to sloping (zero to nine percent) uplands and footslopes. These soils are strongly alkaline. They are not suited for cultivation.
Vls6	Poorly drained loamy to clayey soils over dense claypan subsoils in nearly level (zero to two

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	percent) depressions and on floodplains. These soils are ponded or have water tables at or near the surface. More than 50 percent of the native vegetation is suitable for grazing. These soils are generally not suited to cultivation.
VIw1	Deep, loamy to clayey soils on bottom lands dissected by meandering channels. These soils overflow frequently and are not easily accessible for cultivation.
VIw2	Clayey soils on bottom lands that frequently overflow. These soils are not suited for cultivation.
VIw3	Loamy and sandy soils on bottom lands that frequently overflow. These soils are not suited for cultivation.
VIw4	Poorly drained soils with one to four inches of loamy material over compact claypan subsoil on nearly level (zero to two percent) flood plains. These soils have salts in the subsoil and a fluctuating water table. They are not suited for cultivated crops.
VIIe1	Deep, very sandy soils on rolling to very steep (9 to 50 percent) uplands. These soils have a very severe wind erosion hazard.
VIIe2	Moderately deep, clayey soils on hilly to very steep (25 to 40 percent) uplands. These soils have severe water erosion hazard.
VIIe3	Moderately deep and deep, loamy soils on hilly to very steep (25 to 50 percent) uplands. These soils have thin surface layers and severe water erosion hazard.
VIIe4	Shallow, sandy soils on steep or very steep (25 to 40 percent) uplands. These soils have severe wind and water erosion hazards.
VIIe7	Shallow, silty and loamy soils on steep to very steep (25 to 50 percent) uplands. They have a severe water erosion hazard.
VIIe8	Shallow, clayey soils on steep to very steep (25 to 50 percent) uplands. These soils have a severe water erosion hazard.
VIIe9	Deep and moderately deep, loamy soils on hilly to very steep (25 to 60 percent) uplands. These soils have a very severe water erosion hazard.
VIIIs1	Shallow, loamy soils over hard bedrock on steep to very steep (25 to 50 percent) uplands. These soils have limited rooting depth and low or very low available water capacity.
VIIIs3	Clayey soils with masses of salts in the upper part of the soil. They are on nearly level to very steep (0 to 50 percent) slopes and have a severe water erosion hazard.
VIIIs4	Soils with less than 20 inches of loamy material over sand and gravel on steep to very steep (25 to 50 percent) uplands. The porous substrata limits rooting depth and available water capacity.
VIIIs5	Deep, very saline and alkaline soils on nearly level (zero to two percent) lowlands. High alkalinity, salinity, and water table restrict use on these soils.
VIIIs6	Very stony areas containing shallow to deep soils on nearly level to very steep slopes.
VIIIs7	Dense clay soils on steep (9 to 25 percent) slopes. They are strongly alkaline and contain salts.
VIIIe1	Barren sandy areas caused by erosion. Includes blownout land and riverwash. Protection and management may be needed to protect nearby soils. Best suited to wildlife or recreation.
VIIIs1	Rock outcrops and rock land. Best suited for wildlife and recreation.
VIIIs2	Nearly barren shale land, gravel pits, badlands, and pits and dumps. Best suited for wildlife and recreation.
VIIIs3	Slickspots with gray surface crust over dense massive clay. They have visible salts at or near the surface and support little or no vegetation.
VIIIs4	Urban Land
VIIIw1	Marshes with loamy or clayey soils having more than 50 percent vegetation not suited for grazing. The soils are ponded most of the growing season. Best suited for wildlife and recreation.
VIIIw2	Marshes with sandy soils having more than 50 percent vegetation not suited for grazing. The soils are ponded most of the growing season. Best suited for wildlife and recreation.