February 2026 NSCC Agenda

	DAY 1 - FEB 3 Causes of Soil Compaction (2.5 SW CEUs)	
Time	Topic/Title	Speaker and Affiliation
9:00-9:05	Welcome	**Jodi DeJong-Hughes, UMN Extension**
9:05-9:50	**The Behavior and Character of Soil Compaction** What is soil compaction, its causes, how deep and long it lasts, and how freeze–thaw and wet–dry cycles affect it.	**Aaron Daigh, UNL**
9:55-10:25	**Field Management Decisions that Influence Soil Compaction** Soil Compaction doesn't just happen to us. While the scientific cause of compaction is quite simple, a loss of pore space, the agronomic aspect is complicated by the many management decisions farmers have to make for crop production. We will review how management choices impact the incidence and severity of compaction.	**Ian McDonald, OMAFA, Ontario**
10:25-10:40	Break	
10:40-11:05	**Is Tile Drainage the Right Solution to Mitigate Compaction? The answer: it depends!** You already know that excess soil moisture and compaction go hand-in-hand, but is tile drainage the answer for your farm? Among other benefits, tile drainage increases the number of days with workable soil conditions in the spring and fall, which, in turn, relieves pressure to conduct field operations when conditions are unfavorable—but the profitability of drainage investments involves many factors. This presentation will examine some of these factors using online tools.	**Gary Sands - UMN**
11:10-11:50	**Diagnosing Compaction** Identifying crop and soil symptoms using field tools and planting downpressure maps.	**John Fulton, the OSU**
11:55-12:00	Wrap-up	**Carlos Pires, NDSU Extension**

	DAY 2 - FEB 10 Effects/Symptoms of Soil Compaction (2 SW, 0.5 NM CEUs)	
Time	Topic/Title	Speaker and Affiliation
9:00-9:05	Welcome	**Ian McDonald, OMAFA, Ontario**
9:05-9:45	**Effects of Tire Inflation and Equipment Load on Yield** As farm equipment grows larger and heavier, soil compaction from high axle loads can limit crop development and yield. This study evaluates how precision (central) tire inflation systems on tractors and planters influence soil compaction and corn yield by comparing standard road pressures, IF tire pressures, and central inflation settings.	**Mehari Tekeste, ISU**
9:50-10:20	**How do Soil Management Decisions Affect Soybean Disease Development?** How does compaction and tillage impact the development of disease in crops? This can impact both the host crop as well as manipulate the microenvironment in a way that will increase the risk of disease development.	**Wade Webster - NDSU Extension**
10:20-10:30	Break	
10:30-11:10	**Soil Compaction and Crop Nutrient Dynamics** Plant root growth is reduced in compacted soils, affecting how they interact with the soil around them. Additionally, water movement and retention are reduced because soil pore space and connectivity are decreased. These factors combined affect biological and chemical activity, and therefore, nutrient cycling in compacted soils.	**Francisco Arriaga - UW Extension, Madison**
11:15-11:55	**The Hidden Cost of Compaction** How does compaction affect yields, lodging, stalk strength, planting issues, harvest efficiencies, uneven germination, maturity, pinch-rows, grain moisture and drying,	**Peter Johnson, RealAgriculture, Ontario**
11:55-12:00	Wrap-up	**Mehari Tekeste, ISU**

	DAY 3 - FEB 17 Soil-Machine Equipment Management Options (2 SW CEUs)	
Time	Topic/Title	Speaker and Affiliation
9:00-9:05	Welcome	**Carlos Pires, NDSU Extension**
9:05-9:50	**How Tillage Decisions Impact Susceptibility to Soil Compaction** It's human nature to treat the symptoms, look for cures or solutions in pills or bottles. Maybe it would be more profitable to invest in the prevention of compaction. For that to happen, we need the right tools and knowledge of how to deploy them in the context of what, where, when, why and how to use them	**Jim Boak - Salford Group (Retired), Ontario**
9:55-10:40	**Tires & Tracks - Understanding your choices and making the right decisions** Are Tires or Tracks best for your operation? It depends upon the application! Find out specifics on applications where Tire & Tracks work best, along with how each impacts soil compaction differently.	**Nicolas Dubuc - Soucy Track, Quebec** **David Graden, Michelin, SC** **James Tuschner - Ag Tire Talk, TN**
10:40-10:55	Break	
10:55-11:40	**Choices - What the data tells and why central tire inflation needs to be a serious consideration** Highlighting compaction demonstration results from Ontario and global research, this session will showcase how equipment and tire choices reduce both the incidence and severity of soil compaction. We will also discuss emerging technologies—including tire sensors—and the types of farm equipment that benefit most from Central Tire Inflation Systems (CTIS), as well as how increased industry adoption is shaping the future of CTIS.	**Ian McDonald - OMAFA, Ontario** **Kevin Barnim - Tirecraft, Ontario**
11:45-11:55	Wrap-up	**Marla Riekman, Manitoba Ag**

	DAY 4 - FEB 24 Avoidance and/or Alleviation of Compaction (2.5 SW CEUs)	
Time	**Topic/Title**	**Speaker and Affiliation**
9:00-9:05	**Welcome**	**Mehari Tekeste, ISU**
9:05-9:35	**Building Soil Resiliency to Combat Compaction** This presentation explores practical strategies for building soil health and resiliency by emphasizing the critical role of organic matter and soil structure. Highlighting how strategic, carefully managed tillage can be used to minimize erosion and degradation while maintaining productivity. Together, these approaches provide guidance for long-term agricultural sustainability and improved crop performance.	**Megan Westphal, Manitoba Ag**
9:40-10:25	**Breaking Up Soil Compaction: What Cover Crops Can (and Can't) Do** Soil compaction restricts root growth, water movement, and crop yield. This presentation explores how and when cover crops can help manage compaction, the types of compaction they can influence, and their practical limits. It will highlight integrated management strategies that combine cover crop species selection with equipment choices and timing decisions to reduce compaction risk over time.	**Carlos Pires, NDSU Extension**
10:25-10:40	**Break**	
10:40-11:05	**Alleviating Compaction with Iron** Using a ripper or subsoiler to alleviate compaction may not be as effective as you think. Jodi will discuss how to identify if the soil needs deep ripping, which implement is best for the job, and what to look out for when creating ruts in the field.	**Jodi DeJong-Hughes, UMN Extension**
11:10-11:50	**Traffic Management Systems for Improved Soil Sustainability** The presentation will use case-studies to exemplify the traffic footprint caused by different traffic and tillage systems, and the options available to either mitigate or avoid compaction. The relationship between compaction (traffic footprint) and soil-water availability, rainfall-use efficiency, and long-term crop productivity will also be discussed.	**Diogenes L. Antille, CSIRO Ag and Food**
11:50-12:00	**Wrap up**	**Jodi DeJong-Hughes**