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CENTRAL WISCONSIN SUMMER & FALL BLENDS

Two standard-bag recipes — a drought-tough summer blend to grow the mat, and a fall blend of oats, rye, winter peas, red clover, and brassicas — with Central Sands rates and Hancock planting windows.

By Alex LaRoux · Wisconsin Dirt, Wautoma · Wisconsin Dirt recipes for Central Sands ground.



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Who this guide is for

You hunt or manage ground in **Waushara, Waupaca, Marquette, Adams, Portage, Green Lake, Wood, or Juneau County**. Your plots are small to mid-sized — a quarter acre to a few acres — with no irrigation. The soil is sand or loamy sand that dries out fast. And the deer have options: alfalfa, soybeans, and standing corn on the farms around you.

I run my own plots on a summer-then-fall system: grow a warm-season mix through the summer, then kill it and no-till drill a fall mix into it. This season I sprayed, crimped, then drilled, using commercial summer and fall food-plot mixes. They grew well and held my sandy ground better than broadcasting ever did. Commercial fall mixes are often rye-heavy; I wanted a Wisconsin bag with a known pea and brassica share, and a rate card for this sand. I also changed my order of operations: after digging into the termination research, I now recommend **spray, drill, then crimp** (see the summer blend's planting notes).

This guide is the standard-bag summer and fall blends, written so you can buy components and mix them yourself or hand the list to a seed dealer, plus the Central Sands rates and Hancock planting windows.

> **What this is — and is not**
> These are **Wisconsin Dirt standard-bag recipes**, with Central Sands seeding rates. They are not a seed label. Follow your soil test and the seed tag.

- **What you get:** a summer blend and a fall blend (the standard bags), each with species, pounds in the bag, percent by weight, and why each species is there, plus the Central Sands drilled and broadcast rates.
- Planting windows by date for Central Wisconsin, seeding method notes for a no-till drill or broadcast-and-crimp, and fertility notes built around a soil test.
- A section on competing with neighboring ag fields, a sourcing and shopping list, and a planting checklist.

Why Central Wisconsin is different

Many commercial blends are designed to work across much of the whitetail's range, and many test plots sit farther south. Central Wisconsin asks more of a seed mix in three ways.

1. The soil does not hold water or nutrients

Much of this area sits on the bed and outwash of Glacial Lake Wisconsin. The Wisconsin DNR describes Central Sand Plains soils as excessively drained, with very rapid permeability, very low available water capacity, and low nutrient status. UW–Madison Extension puts plant-available water in a loamy sand at about **1.1 inches per foot** of soil, compared with 2.0–2.5 inches in a silt loam. Its irrigation guide notes that a Plainfield loamy sand at field capacity can carry field corn only **6 to 8 days** in normal July weather before moisture stress, versus 13 to 18 days on a Plano silt loam.

Sand also has a low cation exchange capacity (CEC): it holds little potassium, magnesium, or sulfur, and its pH drifts down. UW Extension notes sandy fields commonly test below pH 6 and that sulfur deficiency is common on sand. That is why the fall blend leans on species that can still perform on lighter ground, and why everything starts with a soil test.

2. The season is short at both ends

At the Hancock Agricultural Research Station (NOAA 1991–2020 normals), the median last spring freeze (32°F) is **May 10** and the median first fall freeze is **October 3** — a 146-day season. One fall in ten, the first freeze comes by **September 20**. The median first hard freeze (28°F) is **October 14**. Low spots and frost pockets run earlier.

That squeezes both blends. A summer mix needs 60°F soil to germinate, which on Central WI sand usually means late May into June. Best summer planting is **June 1–20** so the stand can be grown before fall strips go in; the NRCS 340 window on this South-zone ground stays open to **August 15**. Fall brassicas go in 80 to 70 days before the median 28°F hard freeze (October 14 at Hancock), which is **July 26–August 5**. That is the hard stop for brassicas. Oats last day at Hancock is **September 4**. Peas: the NRCS 340 seeding date opens August 1. Earlier plantings still feed deer but are outside the 340 dates.

3. Summer drought, and no irrigation

Pivots green up the potato and vegetable fields around you; your plot gets whatever falls from the sky. A blend for this area has to come up fast on one rain, hold the sand while it waits for the next one, and not depend on slow, moisture-hungry tropical species to fill out.



Central Sands ground in summer: fast-draining, fast-drying, and worth keeping covered.

The Central WI Summer Blend

Goal: a thick, deer-attractive summer mat that survives a dry July on sand, holds the soil, and leaves plenty of biomass to spray, drill into, and crimp down in August. The **standard bag** is 35 lb. On Central Sands, plant it at **38 lb/acre drilled** (51 lb/acre broadcast).

Species	Lb/acre (drilled)	% of mix	Why it is here
Cowpeas	15	42.9%	The most heat- and drought-tolerant legume in the mix. Handles a dry July on loamy sand better than soybeans.
Forage or non-GMO soybeans	7	20.0%	The main summer protein draw, held at 20.0% of the bag by weight so the mix stays inside the WI NRCS 340 cap at any seeding rate.
Buckwheat	6	17.1%	Fast canopy in 3–4 weeks on low-fertility, acidic ground. Shades weeds and sand while the beans size up.
Forage sorghum	3	8.6%	Deep-rooted and drought-tough. Stalks hold the pea and bean vines up and add mat for the crimper.
Sunflower	1	2.8%	Taproot opens tight subsoil; deer browse young leaves. Kept low so it does not shade out the legumes.
Medium red clover	3	8.6%	A perennial in the summer bag that can carry into later seasons if it establishes. Inoculate with the clover group.

Broadcast rate on Central Sands is 51 lb/acre (1.33× the drilled card rate), and only into a prepared or very open seedbed with light incorporation. Soybeans, cowpeas, and sunflower are large seeds that need soil cover; Wisconsin Extension cover-crop tables do not recommend broadcasting peas, cowpeas, or sunflower without incorporation. Inoculate cowpeas, soybeans, and red clover with the correct groups if your seed is not pre-inoculated.

How this mix is built, and why

• **Dropped mung beans, LabLab, and Alyce clover.** All three are warm-climate legumes that want a long, hot season. On a Central WI calendar, with June planting and an early-August termination for the fall mix, they rarely pay their way.

• **Cowpeas and buckwheat** carry the drought-tough canopy. Cowpeas are the drought-tough legume in the mix; buckwheat gives the fastest canopy on poor, acidic sand.

• **Soybeans stay at 7 lb** (20.0% of the bag by weight) so the mix stays inside the WI NRCS 340 cap at any seeding rate. Small Central WI plots take heavy browse; cowpeas give the beans a better chance.

• **Forage sorghum, sunflower, and red clover** fill the rest of the bag. Sorghum adds drought-tough stalks and mat for the crimper; sunflower is kept low; red clover can carry into later seasons if it establishes.

When and how to plant it

Step	Central WI timing	Notes
Soil temperature check	Late May	60°F at 2 inches at 9 a.m. Use a cheap soil thermometer; sand warms faster than heavier ground.
Plant	Best June 1–20	Ahead of a rain, once 2-inch soil holds 60°F. Hancock (Waushara) is in the NRCS Wisconsin South zone. June 1–20 is the design window so the stand can be grown before fall strips go in; the 340 window on this South-zone ground stays open to August 15 (the North-zone close is August 8). Late plantings have little time to build a mat.
Depth	½–¾ inch	About ¼–¾ inch; too deep causes more trouble than too shallow. On dry sand, the deeper half of that range finds moisture.
Method	No-till drill preferred	Drill into last fall's standing plot or rye, then crimp behind the drill. Crimp alone kills rye only at full anthesis; spray first if it isn't there. Broadcast only into an open seedbed with light incorporation.
Terminate	Late July–early August	Spray the standing blend, drill the fall blend into it within about 3 days while it's still standing, then crimp behind the drill in the same direction. Follow every herbicide label, including replant intervals.

The order: spray, drill, crimp

I used to spray, crimp, then drill. Here is why the research points to **spray → drill → crimp**. A roller alone won't kill this blend: in University of Arkansas trials it killed only 40–60% of sorghum-sudan and 0–10% of cowpeas, so the herbicide does the kill. Glyphosate-type burndowns work about as well before crimping as after (GROW, 2024). Spraying before you seed means you never have to spray over fall seedlings, which can be up in 3–5 days in August. Drilling into standing cover gets better seed-to-soil contact than drilling through a flat mat, where straw hairpins into the slot (UW–Madison roller-crimper work; USDA-ARS). Crimping last, in the drill direction, lays the mat over the rows to hold moisture on sand. If the stand is too tall or tangled to drill, spray, crimp, then drill in the crimp direction.

Spring version, short plots

No June window? Plant the summer blend as early as soil temperature allows and let it run. If you are not following with a fall blend, it can stand until frost kills it, leaving residue on the sand all winter.

The Central WI Fall Blend

Goal: a late-season attraction plot. Oats and peas for early bite, rye and red clover to carry the plot, and 2.7 lb of brassicas that stay under the 4 lb WI NRCS 340 cap even at the broadcast cap. The **standard bag** is 72.7 lb. On Central Sands, plant it at **88 lb/acre drilled** (105 lb/acre broadcast, capped so brassicas stay at or under 4 lb). At that drilled rate, combined brassicas are 3.3 lb.

Species	Lb/acre (drilled)	% of mix	Why it is here
Forage oats	25	34.4%	Nurse crop and fast early bite. Winter-kills in Central WI, leaving a soft mat instead of a stemmy stand next spring.
Cereal rye	20	27.5%	Holds sand over winter and greens up early. At 20 lb it is a full share of the standard bag, not a garnish.
Austrian winter peas	20	27.5%	High-preference, highly digestible fall forage. The National Deer Association describes Austrian winter peas as a high-preference forage with crude protein over 25%. This is a substantial share of the bag, not a pure pea stand (NDA suggests 30–50 lb/acre drilled alone).
Medium red clover	5	6.9%	Survives a Central WI winter and gives a second flush of high-protein forage in spring.
Purple top turnip	1.2	1.7%	Leaves early, bulbs late. Deer shift to roots after cold weather.
Dwarf Essex rape	1.2	1.7%	Standing leaf that holds up into snow.
Daikon-type radish	0.3	0.4%	Fast fall leaf and a taproot that loosens sand. Kept small so combined brassicas stay under the WI NRCS 340 cap of 4 lb/acre in a mix, even when the bag is broadcast at the card's cap.

Inoculate the peas and clovers with the correct inoculants unless the seed is pre-inoculated (peas use the pea/vetch group, R. leguminosarum bv. viciae; clovers need their own). Combined brassicas in the standard bag total 2.7 lb; at the Central Sands drilled rate they are 3.3 lb, under the WI NRCS 340 cap of 4 lb/acre in a mix.

The rye and pea balance

The standard bag uses **20 lb of cereal rye** and **20 lb of Austrian winter peas** — 27.5% of the bag each, plus 25 lb of oats. Rye holds sand over winter and greens up early. On my ground, a rye-heavy commercial fall mix crowded out the peas and brassicas by October, turned stemmy, and left a heavy, thatchy stand to deal with in June. The deer eat rye, but it is the one thing every neighbor's field edge and waterway already has.

Winter peas are a large share of this bag at **20 lb**. The National Deer Association describes Austrian winter peas as a high-preference forage with crude protein over 25% and acid detergent fiber below 20% — very digestible. NDA's suggested drilled rate for a pure stand is 30–50 lb/acre, so 20 lb is a substantial share under oats, rye, and brassicas, not a pure pea stand.

> **Be honest about winter peas in Central Wisconsin**
> Austrian winter peas are cold-tolerant, but UW Extension treats field peas as a crop that will usually winter-kill in Wisconsin. Plan on peas feeding deer from emergence through the first hard freezes, not as a spring crop. The red clover and the rye are what carry this plot into next spring. Peas are also browsed hard: on a small plot with high deer numbers, they can be gone by October. Plant at least ¾–1 acre, or use exclusion cages to see what is really happening. Peas: the NRCS 340 seeding date opens August 1. Earlier plantings still feed deer but are outside the 340 dates.

When and how to plant it

Step	Central WI timing	Notes
Best window	July 26–August 5	80 to 70 days before the median 28°F hard freeze (October 14 at Hancock; 1 in 10 as early as September 29). August 5 is the hard stop for brassicas.
Last call for the full mix	August 5	After this date, leave brassicas out. Peas: the NRCS 340 seeding date opens August 1. Earlier plantings still feed deer but are outside the 340 dates.
Late fallback	Through September 4	Oats last day at Hancock is September 4 (40 days before the 28°F freeze). After brassicas are out, an oats, pea, and rye mix can still go in through that date; rye can go later under NRCS 340.
Depth	About ½ inch	About ¼–½ inch, no more than ¾ inch of cover. Peas tolerate ½–1 inch; small seeds want ¼ inch. If your drill has a small-seed box, run the brassicas and clovers through it shallow.
Method	No-till drill into the sprayed, still-standing summer blend, then crimp behind the drill	Or broadcast at 105 lb/acre into an open seedbed and drag lightly; peas left on top of a mat mostly feed turkeys.

> **Dry knob variant**
> On the sandiest, highest spots, plant the same blend but cut turnip to 1 lb and drop the radish. Keep the peas and oats. Brassicas on bone-dry sand are the first thing to fail.

Out-drawing the neighbor's alfalfa, beans, and corn

Central Wisconsin deer are rarely hungry in October. They are choosing. A small plot will not beat 80 acres of standing corn on volume, so it has to win on **timing, quality, and safety**.

Neighbor's field	When it is at its best	Where your plot wins
Soybeans	Green leaves through August; leaves yellow and drop in September; harvest and waste beans in October	Once bean leaves drop, there is no green legume left in that field. Your peas and clovers are just coming on.
Alfalfa	Regrowth after the last cutting stays green into fall	Alfalfa slows after hard freezes (median 28°F at Hancock: Oct 14). Peas, oats, clover, and brassica leaves stay usable, and brassica roots carry into December.
Standing corn	Food and cover in one place until it is picked	You cannot out-feed corn — so do not try. When the corn comes off, often during gun season, deer look for the nearest food that is close to cover. Make that your plot.

- **Place it next to cover.** A plot tucked against bedding, a swamp edge, or a pine block will out-draw a better plot in the open. Screening (I was happy with a screening mix this year, even in a dry spell) between the plot and the road or field helps deer use it in daylight.
- **Keep it quiet.** Plan an entry and exit you can use with the wind, and stay out once it is planted. Every walk-through is a trip the deer have to deal with.
- **Size it for the pressure.** Peas and brassicas are browsed hard. A quarter acre in a high-deer area can be eaten to dirt by October. Plant more ground, use cages to read browse, or put the fall blend in your largest, safest plot.
- **Build the late-season shift.** Deer use brassicas more in cold weather. Research reported by the National Deer Association found turnip and radish roots were already high in sugar before frost and did not get measurably sweeter after it; the draw is energy-rich food that is still standing when other fields are bare, not a frost trick.
- **Be the green thing in November.** After the beans are cut and the alfalfa is frosted, a plot with green peas, clover, rye, and brassica leaves is often the only green, digestible forage close to cover.

No blend guarantees deer movement. Deer density, hunting pressure, neighboring crops, and the year's weather all decide how a plot performs.

Fertility and lime: start with a soil test

Pull a fertility soil test before you buy seed: 10 or more cores, 6 inches deep, mixed in a clean plastic bucket, sent to the UW–Madison Soil and Forage Lab or another reputable lab. Use the lab's recommendations for lime, phosphorus, potassium, and sulfur. The **Soil Test & Lime/Fertilizer Worksheet** in the Wisconsin Dirt kit walks through reading the report. Alex LaRoux is a land manager and broker, **not a certified soil tester**; this is fertility testing for food plots.

- **pH first.** Winter peas want pH above 6.0 (NDA); clovers and turnips do best around 6.3 (UW A2809). Sand drifts acidic, and lime takes months to work, so lime in the spring for a fall plot.
- **Potassium and sulfur.** Low-CEC sand loses both. On my own plots I put down Antler Dirt fertilizer and added potash before the summer mix; your report decides your rates.
- **Nitrogen.** Peas, cowpeas, soybeans, and clovers fix most of their own nitrogen when inoculated. UW Extension suggests 15–30 lb of supplemental N for field peas grown for biomass. Oats and brassicas respond to some N; follow the report.
- **Organic matter.** The biggest long-term fix for sand is keeping it covered and not tilling. The summer-to-fall rotation is built for that.

Sourcing and budget

You have three practical ways to put these blends together. Wisconsin Dirt does not earn a commission from any of them.

- **Mix it yourself.** Buy oats, peas, rye, cowpeas, and soybeans by the bag from a local co-op or feed mill, and the small seeds (clovers, brassicas, sorghum, sunflower, buckwheat) from a food plot or forage seed dealer. Mix the big seeds and small seeds separately if your drill has two boxes.
- **Order a custom mix.** Several seed companies blend custom mixes to a recipe. Give them the species and pounds per acre in this guide, and check their default ratios: some tools default to even shares.
- **Local pickup.** Wisconsin Dirt is an approved dealer for Thunder Ridge food plot seed and soil products, local pickup in the Wautoma area by arrangement. Call or text Alex at 920-573-1478 to see what is in stock; not every component in these recipes may be available.

Prices move every season, so price the heavy seeds first — **oats, rye, peas, cowpeas, and soybeans** make up most of the weight and most of the cost.

Shopping list: Fall blend (Central Sands drilled rate, 88 lb/acre)

Species	1 acre	½ acre	¼ acre	10,000 sq ft
Forage oats	30.3	15.1	7.6	6.9
Cereal rye	24.2	12.1	6	5.6
Austrian winter peas	24.2	12.1	6	5.6
Medium red clover	6	3	1.5	1.4
Purple top turnip	1.4	0.7	0.4	0.3
Dwarf Essex rape	1.4	0.7	0.4	0.3
Daikon-type radish	0.4	0.2	0.1	0.1

Shopping list: Summer blend (Central Sands drilled rate, 38 lb/acre)

Species	1 acre	½ acre	¼ acre	10,000 sq ft
Cowpeas	16.3	8.1	4.1	3.7
Forage or non-GMO soybeans	7.6	3.8	1.9	1.7
Buckwheat	6.5	3.3	1.6	1.5
Forage sorghum	3.3	1.6	0.8	0.7
Sunflower	1.1	0.5	0.3	0.2
Medium red clover	3.3	1.6	0.8	0.7

Pounds at the Central Sands drilled rate. The standard bags are 72.7 lb (fall) and 35 lb (summer); scale if you plant at a different zone rate. Broadcast rates on the card are 105 lb/acre fall (capped so brassicas stay at or under 4 lb) and 51 lb/acre summer. Round small seeds up; buy at least a pound of each.

Planting checklist

Winter and early spring

- ☐ Soil test pulled and sent (or last fall's report in hand).
- ☐ Lime ordered and spread per the report.
- ☐ Plot acres measured; seed list scaled (see shopping lists).
- ☐ Seed and inoculants ordered or reserved; drill rental booked for June and August.

Summer Blend (June)

- ☐ Soil at 60°F at 2 inches at 9 a.m.
- ☐ Last fall's plot or rye handled: sprayed per label, or rye at full anthesis for a crimp-only kill. Drill calibrated for large seed.
- ☐ Drilled into the standing cover, then crimped behind the drill in the same direction.
- ☐ Drilled ½–¾ inch ahead of rain; drill fully down, slow ground speed.
- ☐ Exclusion cage set out to read browse.

Fall Blend (early August)

- ☐ Summer blend sprayed while standing and actively growing (label replant interval checked).
- ☐ Fall blend drilled into the standing cover within about 3 days of spraying, then crimped behind the drill in the same direction.
- ☐ Peas and clovers inoculated; small seeds in the small-seed box.
- ☐ Drilled about ½ inch, July 26–August 5 at Hancock for the full bag with brassicas, ahead of rain.
- ☐ Missed strips covered with oats or rye within a week.
- ☐ Stay out. Hunt it with the wind. Note what deer use first.

Season notes

Planting date, rate, method, rain in the first 10 days, and what you would change next year

Sources

Rates, dates, and soil guidance come from the following. Check the current page or publication; recommendations are updated.

• **Wisconsin DNR, Central Sand Plains Ecological Landscape (soils)** — https://dnr.wisconsin.gov/topic/lands/EcologicalLandscapes/CentralSandPlains

• **UW–Madison Extension, The important role of soil texture on water** — https://cropsandsoils.extension.wisc.edu/articles/the-important-role-of-soil-texture-on-water/

• **UW–Madison Extension, Irrigation Management in Wisconsin – WISP (A3600)** — https://fyi.extension.wisc.edu/cropirrigation/files/2019/11/A3600-01-19.pdf

• **UW–Madison Extension, Growing great pasture and forage in sandy soils** — https://cropsandsoils.extension.wisc.edu/articles/growing-great-pasture-and-forage-in-sandy-soils-can-it-be-done/

• **UW–Madison Extension, Field Peas (cover crop fact sheet)** — https://cropsandsoils.extension.wisc.edu/articles/field-peas/

• **UW–Madison Extension, Growing successful late-summer and spring planted forage crops** — https://cropsandsoils.extension.wisc.edu/articles/growing-successful-late-summer-and-spring-planted-forage-crops/

• **UW–Madison Extension, Cover crop options after small grains and processing crops** — https://cropsandsoils.extension.wisc.edu/articles/cover-crop-options-after-small-grains-and-processing-crops/

• **UW–Madison Extension (Barron Co.), Cover Crops 101 seeding-rate table** — https://barron.extension.wisc.edu/files/2023/02/Cover-Crops-101.pdf

• **UW–Madison Extension, Wisconsin Cover Crop Selector Tool Updated (MCCC, 2026)** — https://cropsandsoils.extension.wisc.edu/wisconsin-cover-crop-selector-tool-updated/

• **Midwest Cover Crops Council, Cover Crop Decision Tool (county-level windows)** — https://www.midwestcovercrops.org/selector-tools/

• **USDA-NRCS Wisconsin, Cover Crops (340) Guidance, Table 3, NRCS-GD-340 WI (08-1-2025)**

• **NOAA NCEI 1991–2020 normals, Hancock Exp Farm (USC00473405) freeze dates** — https://seasonplot.com/frost-dates/usc00473405/

• **National Deer Association, Austrian Winter Peas** — https://deerassociation.com/austrian-winter-peas/

• **National Deer Association, Do Brassicas Actually Get "Sweeter" After a Frost?** — https://deerassociation.com/do-brassicas-get-sweeter/

• **Univ. of Arkansas Extension, Cover Crop Termination (roller-alone kill by species)** — https://www.uaex.uada.edu/farm-ranch/crops-commercial-horticulture/horticulture/3.%20Cover%20Crop%20Termination_online.pdf

• **GROW IWM (Penn State and partners), How to Integrate Herbicides with Roll-Crimping (2024)** — https://growiwm.org/wp-content/uploads/2024/10/3-How-to-Integrate-Herbicides-with-Roll-Crimping.pdf

• **UW–Madison (Erin Silva), roller-crimper system: plant into standing rye, then crimp** — https://ipcm.wisc.edu/blog/2017/06/video-using-the-roller-crimper-system-with-early-planted-emerged-soybean/

• **Kornecki et al., USDA-ARS (2009), roller/crimper + herbicide termination** — https://www.ars.usda.gov/ARSUserFiles/60100500/csr/ResearchPubs/kornecki/kornecki_09c.pdf

Disclaimer

This guide is general educational information for Wisconsin landowners. It draws on University of Wisconsin–Madison Extension, USDA-NRCS Wisconsin, and other sources cited at the end, plus field experience managing no-till food plots in Central Wisconsin. It is not professional engineering, agronomic, legal, or pesticide advice for a specific property, and it is not a substitute for a current soil-test report or the product label. Always follow pesticide labels and check current county and state requirements.

Fertility soil testing for food plots (pH, lime, phosphorus, and potassium) is different from the soil and site evaluations used to design septic systems in Wisconsin, which are a regulated service. Wisconsin Dirt does not currently offer soil and site evaluations.

Seed, lime, and fertilizer rates in this guide are starting points. Use the recommendations on your soil-test report and the seeding rates on your seed tag. Wisconsin Dirt is an approved dealer for Thunder Ridge food plot seed and soil products; bagged products are available by local pickup in the Wautoma area, arranged ahead of time.

No one can honestly guarantee hunting success or a perfect stand. Plant ahead of rain, and adjust for your soil, deer pressure, and the year you are in. © 2026 Wisconsin Dirt. All rights reserved.