

Late Week U.S. Storm To Impact Crops, Travel and Livestock

By Drew Lerner

Kansas City, December 23 (World Weather Inc.) – A late week and weekend storm system advertised in the U.S. Plains promises to draw much atmospheric energy into the middle of North America. Warm moist air streaming into the Plains from the Gulf of Mexico and cool dry air pushing south from Canada will help to take an innocent looking low pressure center moving from the southwestern U.S. desert region to the western Great Lakes region and blow it up into a major winter storm. *If all of this occurs as advertised there may be some significant weather issues this weekend from the central Plains to the Great Lakes region stressing livestock, causing travel delays and lifting soil moisture in a part of the dry west-central and Plains. The storm system has many days to change its orientation and there is potential for change in the event that will be worth watching while most folks are on holiday. World Weather, Inc. does not believe the storm will be as intense as advertised by some model runs.*

The storm will have its roots in California. Some rain has already begun to impact a part of the state with some mountain snowfall as well. But today's storm in the far west will not likely go very far until a reinforcing shot of energy merges with it late Wednesday and Thursday. That new energy source will come with a deeper upper level trough of low pressure moving into southern California at the end of this workweek. That trough will drag cool air aloft through the southwestern U.S. and help to enhance precipitation as the storm comes inland to the southwestern desert region and southern Rocky Mountains.

The storm system will weaken as it crosses the Rocky Mountains but, as it drops over the east side of the mountains the low pressure center will have a chance to regenerate and deepen quickly. It is at that time that the combination of cool air aloft, Gulf of Mexico warm, moist, air streaming inland and cooler air moving south from Canada will combine to start intensifying the storm system. At that point it is all about the amounts of warm and cool air that are available to the developing storm and how much moisture is absorbed and retained by the system. The unusually warm weather in the southern and central Plains present late this week will certainly give the storm system the moisture support, but the bigger question is how much cold air will be present for the storm to work with.

Cold air is expected to come southward from Canada this weekend and next week, but the question is about timing. If the cold is delayed in reaching the central Plains the storm system could move to the Great Lakes region without generating big soaking rains or heavy wet snow. But if the timing is correct there will be quite a swath of both. In fact, there is potential for severe thunderstorms in the southern Plains, Midwest and Delta if the all the energy comes together at the right time. There would also be potential for blizzard development from Nebraska to the upper Midwest.

Today's computer forecast models are in somewhat good agreement that a storm will be impacting the middle of North America, but they differ on the impact. The GFS is quite a bit overboard on the intensity of the storm mostly because of its prediction of greater cool air coming into the system from the north. *World Weather, Inc. does not believe the cold air will be in place at the time this storm evolves – at least not enough to generate the kind of blizzard the GFS is hinting at.*

The European and Canadian forecast models keep the storm farther to the south and more removed from the cold air source. This limits the significant snowfall to the

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high Plains region and probably to a part of eastern Colorado, Nebraska and northwestern Kansas. The snow might fail to hold together farther to the northeast unless there is greater cold air coming in from Canada and there is a more favorable northeast track in the storm's movement.

World Weather, Inc anticipates heavy snow from northeastern Colorado to Nebraska and northwestern Kansas. Early indications suggested 4 to 10 inches and locally greater amounts. Rainfall will vary from 0.25 to 0.75 inch in the southwestern hard red winter wheat areas including southwestern Kansas and areas southwest to the Texas Panhandle. There is potential for greater rainfall, but probably to the east of this region from central Kansas to north-central Texas where some 1.00 to 2.00 inch totals will be possible along with some strong to severe thunderstorms.

Because of this storm being cut off from the main jet stream World Weather, Inc. not only believes the greatest snow will be from northern Colorado into Nebraska, but the greatest moisture associated with the storm may occur in an arc from northeastern Colorado through Nebraska and parts of southwestern Iowa, eastern Kansas and Missouri to eastern Texas leaving the southwestern Plains with a lighter bias in precipitation.

Certainly if the storm taps into significant cold air from Canada and moves to the western Great lakes it will become a significant influence on travel and livestock conditions, but more likely the storm will be less impacting outside of Nebraska and Colorado, although rain will fall significantly in the Midwest where saturated field conditions will prevail. The storm should also produce a line of thunderstorms in the Delta, Tennessee River Basin and eventually in the southeastern states with much of that coming late in the weekend into Monday and possibly Tuesday Dec. 30-31.

The bottom line is to have a great holiday and worry about the weather latter.
With that said be sure to keep an eye on the late week and weekend storm to see if it is going to disrupt travel plans. In the meantime, there is some potential for a disruption to travel in a part of the central Plains this coming weekend and stress for livestock is probable from Colorado to Nebraska. Moisture increases in the drier areas of the Kansas, Colorado and Oklahoma are possible, but it is probably not going to be as great as that advertised this morning unless the storm moves farther south.

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