

For: State Offices

Establishing Extreme Cold and Extreme Heat Thresholds Under LIP

Approved by: Acting Deputy Administrator, Farm Programs



1 Overview

A Background

According to 1-LDAP (Rev. 1), STC’s establish extreme cold and extreme heat thresholds relative to eligible livestock losses under LIP.

Recently, State Offices were asked to submit information about STC policy for extreme cold and extreme heat under LIP. The National Office has reviewed those policies. Based on the information submitted from all State Offices, we are instituting guidelines for STC’s to use in arriving at a policy for extreme cold and extreme heat thresholds.

All STC’s must review their existing policy with the guidance set forth in this notice and make modifications where warranted.

If STC modifies or establishes new policy consistent with the guidelines discussed in this notice, the new policy will apply to any LIP notices of loss and applications involving extreme cold or extreme heat that had not been previously acted on.

B Purpose

This notice provides:

- guidelines for STC to establish extreme heat and extreme cold thresholds for eligible livestock losses under LIP
- a deadline of July 29, 2016, for State Office to submit a report of the STC review of extreme cold and extreme heat policy and any modifications of the same.

Disposal Date	Distribution
January 1, 2017	State Offices

Notice LDAP-81

2 Extreme Cold and Extreme Heat Threshold Guidelines

A Matters to Consider in Establishing Extreme Cold and Extreme Heat Thresholds Under LIP

Under LIP, any claimed loss of an animal must be the direct result of an eligible cause of loss which is an eligible adverse weather event according to 1-LDAP (Rev. 1). For all the conditions mentioned in that definition, including extreme cold and extreme heat, the weather event must be one that was not expected to occur (abnormal weather) during the loss period.

Sometimes an extreme cold or extreme heat threshold (amount that would expectantly result in death of an animal) is reached; however, the event that occurred was not abnormal weather when it occurred. In that instance, the cold or heat event is not an eligible cause of loss (even though the extreme cold or extreme heat threshold was reached).

Example: A STC establishes an extreme cold threshold for nonadult beef calves under 799 pounds at -20 °F for 2 consecutive days. A producer files a notice of loss and claims that animals died to due extreme cold in January. Weather data shows that the cold occurred for 2 days as claimed; however, because the event was not abnormal or unexpected, the cold weather event is not an eligible cause of loss. In this case the extreme cold threshold established was correct for class of livestock; however, because the actual weather event occurred when it was not unexpected, the cold weather event cannot be considered eligible for this loss claim. However, in this case; if the actual temperature exceeded the threshold (-30 °F for 2 consecutive days), the extreme cold could be an eligible cause of loss.

STC's will establish extreme cold and extreme heat thresholds for each livestock category (kind/type and weight range of eligible livestock). Each extreme cold and extreme heat threshold must be established:

- based on a determination of the measure of extreme cold or extreme heat an animal must be subjected to that results in death of the animal
- without any regard to average normal weather (the extreme heat or extreme cold threshold that STC determines is fatal to eligible livestock will not be based on and is not dependent upon any comparison of average normal weather; departures from average normal weather (highs or lows) will not be used to establish what is the extreme cold or extreme heat that would expectantly kill livestock)
- based on information obtained from a source STC determines is credible and appropriate including but not limited to this notice, universities, Extension Service, or other FSA STC's.

The extreme cold or extreme heat threshold established will apply to all notices of loss filed for any and all eligible adverse weather events that occur in a calendar year.

Reminder: If STC revises its policy consistent with this notice, the revised policy will apply to any notices of loss and applications for payment not previously acted on.

Notice LDAP-81

2 Extreme Cold and Extreme Heat Threshold Guidelines (Continued)

B Examples of Policies for Extreme Cold and Extreme Heat Not Consistent and Consistent with Guidelines

The following tables provide examples of threshold policies not consistent with and consistent with guidelines:

Policy NOT Consistent With Guidelines	Policy Consistent With Guidelines
<p>Extreme cold eligibility criteria is met when the actual high temperature is 10°F or more below the maximum average high temperature, according to historical weather data, for a minimum of 3 consecutive days.</p>	<p>COC's will use wind chill to determine LIP eligibility for deaths due to extreme cold for livestock that are not housed or sheltered. When animals are not subject to wind, wind chill will not be considered; only ambient temperature will be used. Livestock deaths must be a direct result of extreme cold as shown below and be unexpected to have occurred (abnormal weather) in the loss period, and the deaths must occur no later than 60 days from the ending date of the applicable extreme cold event. Temperature threshold (wind chill for animals exposed to wind and ambient temperature to animals not exposed to wind) must occur in 2 or more consecutive days to be considered extreme.</p> <p>The following is a list of species, weight range, wind chill, and/or temperature levels defined as extreme cold:</p> <p><u>Sheep</u> Lambs -10°F Ewes -30°F Rams -30°F</p> <p><u>Beef</u> Nonadult, Under 400 lbs -20°F Nonadult, between 400 to 799 lbs -20°F Nonadult, 800 lbs and over -40°F Adult, Cow -40°F Adult, Bull -40°F</p> <p><u>Dairy</u> Nonadult, under 400 lbs -20°F Nonadult, between 400 to 799 lbs -20°F Nonadult, 800 lbs and over -40°F Adult, Cow -40°F Adult, Bull -40°F</p> <p><u>Equine</u> All -40°F</p> <p><u>All Other Livestock</u> All -40°F</p>

Notice LDAP-81

2 Extreme Cold and Extreme Heat Threshold Guidelines (Continued)

B Examples of Policies for Extreme Cold and Extreme Heat Not Consistent and Consistent with Guidelines (Continued)

Policy NOT Consistent With Guidelines	Policy Consistent With Guidelines																																																																																																																																																																																																																																		
<p>Excessive heat eligibility is met when the actual high temperature is 10°F or more above the average high temperature for consecutive days for a prolonged period of time.</p>	<p>To determine extreme heat, COC will use the Temperature Humidity Index (THI). The THI incorporates air temperature and humidity. The THI has been used to create a Livestock Weather Safety Index (LWSI). The LWSI describes various categories of heat stress associated with extreme temperature conditions for livestock. LIP eligibility criteria looks for the THI to exceed 84°F for 2 consecutive days in order to qualify for the program and insure the THI did not fall below 75°F for 2 consecutive nights prior to death. <i>(NOTE: FOR ILLUSTRATION PURPOSES THIS IS ONLY A PARTIAL THI)</i></p> <table border="1" data-bbox="500 821 1463 1570"> <thead> <tr> <th colspan="13">Temperature Humidity Index (THI)</th> </tr> <tr> <th colspan="2"></th> <th colspan="11">Relative Humidity</th> </tr> <tr> <th colspan="2"></th> <th>30%</th> <th>35%</th> <th>40%</th> <th>45%</th> <th>50%</th> <th>55%</th> <th>60%</th> <th>65%</th> <th>70%</th> <th>75%</th> <th>80%</th> <th>85%</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>100°</td> <td>84</td> <td>85</td> <td>86</td> <td>87</td> <td>88</td> <td>90</td> <td>91</td> <td>92</td> <td>93</td> <td>94</td> <td>95</td> <td>97</td> </tr> <tr> <td>E</td> <td>98°</td> <td>83</td> <td>84</td> <td>85</td> <td>86</td> <td>87</td> <td>88</td> <td>89</td> <td>90</td> <td>91</td> <td>93</td> <td>94</td> <td>95</td> </tr> <tr> <td>M</td> <td>96°</td> <td>81</td> <td>82</td> <td>83</td> <td>85</td> <td>86</td> <td>87</td> <td>88</td> <td>89</td> <td>90</td> <td>91</td> <td>92</td> <td>93</td> </tr> <tr> <td>P</td> <td>94°</td> <td>80</td> <td>81</td> <td>82</td> <td>83</td> <td>84</td> <td>85</td> <td>86</td> <td>87</td> <td>88</td> <td>89</td> <td>90</td> <td>91</td> </tr> <tr> <td>E</td> <td>92°</td> <td>79</td> <td>80</td> <td>81</td> <td>82</td> <td>83</td> <td>84</td> <td>85</td> <td>85</td> <td>86</td> <td>87</td> <td>88</td> <td>89</td> </tr> <tr> <td>R</td> <td>90°</td> <td>78</td> <td>79</td> <td>79</td> <td>80</td> <td>81</td> <td>82</td> <td>83</td> <td>84</td> <td>85</td> <td>86</td> <td>86</td> <td>87</td> </tr> <tr> <td>A</td> <td>88°</td> <td>76</td> <td>77</td> <td>78</td> <td>79</td> <td>80</td> <td>81</td> <td>81</td> <td>82</td> <td>83</td> <td>84</td> <td>85</td> <td>86</td> </tr> <tr> <td>T</td> <td>86°</td> <td>75</td> <td>76</td> <td>77</td> <td>78</td> <td>78</td> <td>79</td> <td>80</td> <td>81</td> <td>81</td> <td>82</td> <td>83</td> <td>84</td> </tr> <tr> <td>U</td> <td>84°</td> <td>74</td> <td>75</td> <td>75</td> <td>76</td> <td>77</td> <td>78</td> <td>78</td> <td>79</td> <td>80</td> <td>80</td> <td>81</td> <td>82</td> </tr> <tr> <td>R</td> <td>82°</td> <td>73</td> <td>73</td> <td>74</td> <td>75</td> <td>75</td> <td>76</td> <td>77</td> <td>77</td> <td>78</td> <td>79</td> <td>79</td> <td>80</td> </tr> <tr> <td>E</td> <td>80°</td> <td>72</td> <td>72</td> <td>73</td> <td>73</td> <td>74</td> <td>75</td> <td>75</td> <td>76</td> <td>76</td> <td>77</td> <td>78</td> <td>78</td> </tr> <tr> <td></td> <td>78°</td> <td>70</td> <td>71</td> <td>71</td> <td>72</td> <td>73</td> <td>73</td> <td>74</td> <td>74</td> <td>75</td> <td>75</td> <td>76</td> <td>76</td> </tr> <tr> <td></td> <td>76°</td> <td>69</td> <td>70</td> <td>70</td> <td>71</td> <td>71</td> <td>72</td> <td>72</td> <td>73</td> <td>73</td> <td>74</td> <td>72</td> <td>75</td> </tr> </tbody> </table> <p style="text-align: center;">THI = Tdbf - (0.55 - (0.55 x (RH / 100))) x (Tdbf - 58)</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%;">Normal <74</td> <td style="width: 25%;">Alert 75-78</td> <td style="width: 25%;">Danger 79-83</td> <td style="width: 25%;">Emergency >84</td> </tr> </table>	Temperature Humidity Index (THI)															Relative Humidity													30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	T	100°	84	85	86	87	88	90	91	92	93	94	95	97	E	98°	83	84	85	86	87	88	89	90	91	93	94	95	M	96°	81	82	83	85	86	87	88	89	90	91	92	93	P	94°	80	81	82	83	84	85	86	87	88	89	90	91	E	92°	79	80	81	82	83	84	85	85	86	87	88	89	R	90°	78	79	79	80	81	82	83	84	85	86	86	87	A	88°	76	77	78	79	80	81	81	82	83	84	85	86	T	86°	75	76	77	78	78	79	80	81	81	82	83	84	U	84°	74	75	75	76	77	78	78	79	80	80	81	82	R	82°	73	73	74	75	75	76	77	77	78	79	79	80	E	80°	72	72	73	73	74	75	75	76	76	77	78	78		78°	70	71	71	72	73	73	74	74	75	75	76	76		76°	69	70	70	71	71	72	72	73	73	74	72	75	Normal <74	Alert 75-78	Danger 79-83	Emergency >84
Temperature Humidity Index (THI)																																																																																																																																																																																																																																			
		Relative Humidity																																																																																																																																																																																																																																	
		30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%																																																																																																																																																																																																																						
T	100°	84	85	86	87	88	90	91	92	93	94	95	97																																																																																																																																																																																																																						
E	98°	83	84	85	86	87	88	89	90	91	93	94	95																																																																																																																																																																																																																						
M	96°	81	82	83	85	86	87	88	89	90	91	92	93																																																																																																																																																																																																																						
P	94°	80	81	82	83	84	85	86	87	88	89	90	91																																																																																																																																																																																																																						
E	92°	79	80	81	82	83	84	85	85	86	87	88	89																																																																																																																																																																																																																						
R	90°	78	79	79	80	81	82	83	84	85	86	86	87																																																																																																																																																																																																																						
A	88°	76	77	78	79	80	81	81	82	83	84	85	86																																																																																																																																																																																																																						
T	86°	75	76	77	78	78	79	80	81	81	82	83	84																																																																																																																																																																																																																						
U	84°	74	75	75	76	77	78	78	79	80	80	81	82																																																																																																																																																																																																																						
R	82°	73	73	74	75	75	76	77	77	78	79	79	80																																																																																																																																																																																																																						
E	80°	72	72	73	73	74	75	75	76	76	77	78	78																																																																																																																																																																																																																						
	78°	70	71	71	72	73	73	74	74	75	75	76	76																																																																																																																																																																																																																						
	76°	69	70	70	71	71	72	72	73	73	74	72	75																																																																																																																																																																																																																						
Normal <74	Alert 75-78	Danger 79-83	Emergency >84																																																																																																																																																																																																																																

Notice LDAP-81

2 Extreme Cold and Extreme Heat Threshold Guidelines (Continued)

C Review of STC Policy

State Office specialists will review their STC policy relative to extreme cold and extreme heat and determine whether or not existing policy is consistent with this notice or if the policy requires modification or revision.

All determinations of either maintaining existing policy or amending the policy for use on any and all LIP applications not previously acted on in the calendar year must be all of the following:

- made by STC
- recorded in minutes
- reported to DAFP according to paragraph 3.

Note: Notwithstanding any delegation to STC's, at any time DAFP can review, modify, or request STC to review or modify extreme cold or extreme heat policy or criteria.

Notice LDAP-81

3 Action

A State Office Action

State Office employees will:

- research existing STC policy for extreme cold and extreme heat
- determine if additional analysis is required in order to provide STC with sufficient information to determine if policy requires revision or not

Example: State Office employees will gather information necessary for STC from credible and appropriate sources including but not limited to this notice, universities, Extension Service, or other FSA STC's.

- provide a copy of this notice and information necessary to STC
- request STC to review and ensure that its policy for extreme cold and extreme heat in accordance with this notice
- by July 29, 2016, report to DAFP any amendments to STC policy on extreme cold and or extreme heat relative to eligible livestock losses under LIP to the Special Programs Manager at **amy.mitchell1@wdc.usda.gov**

Note: Negative reports (STC decides not to modify or revise (update) any of its existing policy) are required.

- notify County Offices of any updated STC policy.

B County Office Action

County Office employees will provide COC's with updated STC policy for review of any LIP applications to which the policy applies.

Any new policy established by STC will apply to any LIP applications not previously acted on by COC in that calendar year.