Feed supplementation is in high need during the winter months. The forage that is available in winter is lower in nutrition because it has gone into dormancy or has been sun-cured (Hay). Without proper nutrition, livestock will not properly perform so protein and energy supplementation in the form of pre-mixed feed is suggested. The type and amount of feed that is needed is determined by the type, size, age, and stage of production the animal is in. When supplying feed, ensure that all animals have equal access. Take actions to ensure that the smaller, younger, and older animals are not cast out and away from the feed.

Forages are important due to containing a large quantity of minerals and vitamins that livestock need. Provided forage should be high in quality, so that the forage contains the most nutrients. There are several factors that degrade good quality hay. Some factors include sun bleached hay, wet hay, weedy hay, and weathered hay. These factors take away the nutrients that are within the hay. When those nutrients are depleted, the hay is no longer acceptable quality. If forage requirements are not met, livestock will not be able to properly digest the feed and other nutrients given to them.

Not all vitamins and minerals are supplied through forage, requiring that a free-choice loose mineral be provided. Loose minerals are typically pre-mixed and ready to feed. The best method of supplying these minerals is through a free choice mineral feeder that is available to the livestock at all times. Minerals in the form of blocks and tubs often do not supply sufficient amounts of minerals to animal. Cattle and other small ruminants do well with loose minerals, while horses may do better with a block. Please be mindful of the minerals you are buying and make sure that they are approved for your livestock. Ideally, you should have the mineral mixes out year-round to meet the needs of your animal, but just be mindful that the needs of those mineral requirements do increase in winter and different stages of life. Because of this you mineral feeders should be full at all times. Animals are typically good judges of consuming how much mineral they need and will only consume the required amounts.

In winter, all weather possibilities and speculations should be considered and prepared for. It is suggested that a considerable amount of feed and forage is available in the case of a large unexpected storm. If possible, preparations for an alternate field and shelter for the livestock, in case their pasture is inaccessible, is suggested. Excess medical supplies and equipment should be prepared in the case the of an injury or birthing during bad weather.

For more information on preparing livestock for winter, please contact Michelle South, Extension Agent-Livestock, at 828.688.4811 or by email at <u>michelle south@ncsu.edu</u>.