By Sandy Johnson, Extension Beef Specialist, Colby, and AJ Tarpoff, DVM, Extension Veterinarian

The checklist below is designed to help you plan and prepare to improve the success of your calving season and weaned calf crop.

1. Balance cow rations for adequate protein and energy for increased third trimester and subsequent lactation requirements. Group and feed cows by body condition and age to the degree possible. Target body condition for first calf heifers at calving of 5.5 to 6 and 5 to 5.5 for mature cows.

2. Develop sound vaccination program to prepare the cow to produce high quality colostrum.

3. Control lice and internal parasites.

4. Plan for recording calving data and consider ways to backup records.

5. Make sure calving facilities are clean and in good repair.

6. Plan for ear tags, tattoos, scale or weight tape, banding or castration.

7. Check flash lights and other quality portable light sources.

8. Check-list for calving assistance

   8.1.1. OB chains, calf puller, OB gloves, OB lube (non-detergent soap & water is one option), non-irritant antiseptic (Betadine or Nolvasan), flank rope to lay cow down

   8.1.2. A cooler can be used to keep warm water in calving barn if no other source available.

   8.1.3. Old towels or similar

9. Review basic treatment plans with local veterinarian for retained placenta, calf scours, colostrum replacers and supplements and ensure necessary treatments and supplies are on hand or readily available. Include a functional thermometer.

10. Know the difference between colostrum supplements and replacers, in most instances use replacers that contain at least 100 IgG per dose.

11. Have on hand at least 2 clean and functional esophageal tube feeders, clearly marked, one for healthy calves, one only used for sick calves.

12. Plan and watch for opportunities to collect colostrum from within the herd. Date and freeze in quart sized plastic bags for future use.

13. If replacement calves are obtained from outside the herd, plan for their isolation and testing before exposing to entire herd.

14. Plan for severe weather; wind, freezing rain and blizzards are not uncommon. Plan for correcting calf hypothermia. Calf shelters should be in good repair, bedding on hand. Plans for portable windbreaks and calf shelters are available from your local extension office.

15. Shift feeding to dusk or later to promote day time calving one week before anticipated start of calving season.
**Fruit Trees and Frost**

If you are considering purchasing fruit trees this spring, there are certain factors that should be considered for some of our fruit tree species. Spring in Kansas is often unsettled with apricot and peach tree flowers being very vulnerable to late frosts that can kill fruit buds. Of course, the tree itself will be fine but there will be no to little fruit for that year. Other species of trees can also be affected but apricots and peaches are by far the most sensitive. Also, the closer a tree is to full bloom, the more sensitive it becomes to frost.

Apricots are more likely to have frost kill flowers than peaches because they bloom a bit earlier. Though there are late-blooming apricot varieties, the differences between full bloom on early and late-blooming varieties appears to be slight. Research at Virginia Tech in the 90's showed a maximum of a 4-day difference between early and late varieties. However, in some years that may be all that is needed. The trees in the study that were considered late blooming included Hungarian Rose, Tilton and Harlayne. Harglow was not included in the study but is also considered late-blooming. See [https://tinyurl.com/y35ntxau](https://tinyurl.com/y35ntxau) for more info.

Peaches are next on the list for being likely to be caught by a late frost. With peaches, two characteristics become important when considering whether they will be damaged. Like apricots, bloom time is very important but fruit bud hardiness should also be considered. In this case, fruit bud hardiness refers to hardiness to late frosts rather than the ability to survive extreme low temperatures during the winter. Late bloomers included ‘China Pearl', ‘Encore', ‘Intrepid', ‘Contender' and ‘Risingstar.' See [https://tinyurl.com/y35ntxau](https://tinyurl.com/y35ntxau). The ‘Intrepid' cultivar also has shown excellent cold hardiness when in flower. See [http://www.google.com/patents/USPP12357](http://www.google.com/patents/USPP12357)

So, are there other considerations when looking at possible frost damage? Location can be very important. Planting on a hill which allows cold air to drain to lower elevations can help. Also, a location in town will be more likely to have a warmer micro-climate than an exposed location. Some gardeners will add a heat source under a tree during cold nights if they are close to a building. Heat lamps and charcoal briquettes are sometimes used but safety should be the first consideration. (Ward Upham)

**Dutch Elm Disease Resistant American Elms**

Our John C. Pair Horticultural Center near Wichita established a National Elm Trial in 2007 with 18 cultivars. All of these are Dutch Elm Disease (DED) Resistant with 4 being true American elms. The cultivar ‘Jefferson' would have been a fifth true American elm but proved to be the same cultivar as ‘Princeton'. The remainder are either hybrids or other elm species. The four true American elms are ‘Valley Forge', ‘Princeton', ‘New Harmony' and ‘Lewis and Clark' (Prairie Expedition). All have shown excellent tolerance to DED. Characteristics listed below are primarily from our study at the John C. Pair Horticultural Center but storm breakage is from the University of Minnesota.

1. ‘Valley Forge', Survival: 100%, Crown Shape: Vase, Lacebug damage to foliage: Minimal, European elm flea weevil damage: Minimal, Storm Breakage: Fair, Comments: Strong grower, broad spreading
2. ‘Princeton', Survival: 100%, Crown Shape: Vase, Lacebug damage to foliage: Minimal, European elm flea weevil damage: Minimal, Storm Breakage: Fair, Comments: Impressive grower, upright habit, attractive tree
3. ‘New Harmony', Survival: 100%, Crown Shape: Vase and round, Lacebug damage to foliage: Significant
European elm flea weevil damage: Minimal, Storm Breakage: Not in Minnesota study,
Comments: Narrow, upright habit with strong, central axis
4. ‘Lewis and Clark' (Prairie Expedition), Survival: 80%, Crown Shape: Broad oval, Lacebug damage to foliage: Minimal, European elm flea weevil damage: Minimal, Storm Breakage: Good, Comments: Strong grower with broad spreading habit, some wetwood.

Storm damage can be minimized by pruning when the tree is young. Maintain a central leader but prune out all lower branches as the tree grows and branches increase in diameter so that there is room to work under the tree. Also prune out branches attached with a narrow angle as these are most likely to give way in ice or wind storms. For more information regarding the study, see
https://webdoc.agsci.colostate.edu/bspm/NationalElmTrial/AUF2017.pdf For photos and information on hybrids and other species of elm, see
https://webdoc.agsci.colostate.edu/bspm/ElmKansas.pdf. (Ward Upham)

Start Trees Off Right
Research from K-State's John C. Pair Horticultural Center has quantified the effect of controlling grasses around newly planted trees. Jason Griffin, William Reid, and Dale Bremer conducted a study to investigate the inhibition of growth of transplanted, seedling trees when lawn grasses were allowed to grow up to the trunk. There were five treatments, including three with different species of grass: 1. Bare soil maintained with herbicides. 2. Area under tree mulched 3 inches deep. 3. Tall fescue allowed to grow under tree. 4. Bermudagrass allowed to grow under tree. 5. Kentucky bluegrass allowed to grow under tree.

All treatments were applied to Eastern redbud seedlings as well as to pecan seedlings. All trees were fertilized according to recommendations and watered during the growing season with up to 1 inch of water if rainfall was deficient. At the end of two years, trees were measured and harvested. Data was taken on caliper (diameter) 6 inches above the ground, weight of aboveground portions of the tree, leaf area, and leaf weight. There were no differences in any measure between the mulched treatment and the bare soil treatment for either tree species. All measures showed significant growth increases if lawn grasses were controlled around the tree.

Results include the following: 1. Caliper: Caliper measures 6 inches above the soil surface were twice as large for plots without grass than for those with either fescue or bluegrass, but only 50% larger when compared to the bermudagrass plots. 2. Top growth weight: Redbuds showed a 300% weight advantage for plots with grasses controlled than those without. Pecans showed a significant 200% increase. 3. Leaf area and leaf weight: Leaf areas were 200% larger in plots without grass competition and leaf weight showed a 300% increase.

The obvious conclusion from this study is that grasses must be controlled under a newly transplanted tree to get the best possible growth. Though there were no differences in growth whether mulch was used or not, you may still wish to mulch for aesthetic reasons or to help
control weed growth. How far from the trunk should the grasses be controlled? Try a minimum of 3 feet. (Ward Upham)

**Now is a Good Time to Design Your Landscape**

The dark, cold days of winter are a good time to dream and plan for the upcoming growing season. Have you always wanted to landscape your home but didn't know where to start? We offer a number of publications available to help you accomplish your dream. This collection includes everything from general landscaping publications such as "Residential Landscape Design," to specific works such as "Naturalistic Landscaping" and "Low-Maintenance Landscaping."

You can download printed publications for landscaping free of charge from [http://hnr.k-state.edu/extension/publications/landscaping.html](http://hnr.k-state.edu/extension/publications/landscaping.html). Information on plants recommended for Kansas can be found at [https://hnr.k-state.edu/extension/info-center/recommended-plants/index.html](https://hnr.k-state.edu/extension/info-center/recommended-plants/index.html).

You may also request printed copies from the Hodgeman County Extension office. There may be a small charge for printed copies of larger publications.

**Bird Feeding**

Severe winter weather is not only hard on people but can be a life and death struggle for birds. Though birds also require water and shelter, food is often the resource most lacking during cold weather. Many different bird food mixes are available because various species often prefer different grains. However, there is one seed that has more universal appeal than any other: black oil sunflower. If you are new to the bird-feeding game, make sure there is a high percentage of this seed in your mix. White proso millet is second in popularity and is the favorite of dark-eyed juncos and other sparrows as well as the red-winged blackbird.

As you become more interested in bird feeding, you may want to use more than one feeder to attract specific species of birds. Following is a list of bird species with the grains they prefer.

- Cardinal, evening grosbeak and most finch species – sunflower seeds, all types.
- Rufous-sided towhee – white proso millet.
- Dark-eyed junco – white and red proso millet, canary seed, fine cracked corn.
- Many sparrow species – white and red proso millet.
- Bluejay – peanut kernels and sunflower seeds of all types.
- Chickadee and tufted titmouse – peanut kernels, oil (black) and black-striped sunflower seeds.
- Red-breasted nuthatch – oil (black) and black-striped sunflower seeds.
- Brown thrasher – hulled and black-striped sunflower seeds.
- Red-winged blackbird – white and red proso millet plus German (golden) millet
- Mourning dove – oil (black) sunflower seeds, white and red proso plus German (golden) millet.

Extended cold periods can also make water unavailable. A heated birdbath can be a tremendous draw for birds during times when all other water is frozen. Energy use is usually less than what most people expect IF the heater has a built-in thermostat.
If you would like more information, Chuck Otte, Agriculture and Natural Resources Extension Agent for Geary County has a series of backyard birding guides at http://gearycountyextension.com/NRMW.htm (Ward Upham)

**Fertilizing Houseplants Throughout the Year**

Houseplants should not be fertilized with a consistent amount of fertilizer throughout the year. The amount required depends on the season. Normally houseplants that rely on natural sunlight are not fertilized at all from November through February as the light levels are so low that fertilizer is not needed. The light intensity is less during the winter as the sunlight must pass through more of the atmosphere resulting in less light energy. Also, the days are shorter resulting in even less light available for growth. Fertilizing during these dark months can do harm. Fertilizer are salts and can build up in the soil if the plant doesn't take them up due to slow growth. Eventually the fertilizer salt content can reach a level that roots are burned.

So what is a simple method for fertilizing houseplants? Fertilize at the rate recommended on the label of your fertilizer from March through October. Don't fertilize at all during November through February unless the plants are receiving supplemental lighting. If they are, then fertilize the same amount throughout the year.

If your fertilizer recommends fertilizing once a month, try splitting the concentration recommended in half and fertilize twice a month. The total amount is the same but the frequency is doubled which may result in a more efficient use of the fertilizer. (Ward Upham)