## ESTABLISHMENT

- I. Note soil types (droughty, wet, etc.)
- 2. Soil test and apply fertility before tillage. Ideally, lime should be applied 6-12 months in advance.
- 3. Control perennial weeds prior to land preparation.
- 4. Select appropriate mixture for soil types, livestock and harvest management.
- 5. Determine ideal seeding time for your local area. (Late winter to early spring or late summer are usually ideal.)
- Prepare a level, firm seedbed or, if using no-till, kill vegetation prior to seeding with appropriate non-residual herbicides.
- 7. Calibrate seeder for appropriate seeding rate and depth.
  - a. Our mixtures work best in the large box.
  - b. Call for a calibration sheet. The best method is to collect and weigh seed over a short distance to determine seeding rate.
  - c. Seed at 1/8" to 1/4" with about 10% of seed on surface.
  - d. Press wheels and cultipacking are critical to a good seeding. Cultipack twice in dry conditions.

# PRODUCTIVE LONG LIVED STANDS

#### **NEW STAND**

Overgrazing a new stand could result in a lost stand or decreased life of a stand. Also, keep livestock off a new stand if conditions are wet or extremely dry/droughty.

#### **SOIL FERTILITY**

Soil fertility not only affects not just yield, but also quality, which includes palatability of the forage. Soil sampling should be completed at least every two years in hay systems. We recommend labs that look not just at pH, N, P & K, but Calcium as well.

## **CUTTING TIMES & FREQUENCY**A KEY TO QUALITY

Forage quality is almost always higher with more frequent harvest. However, for alfalfa and clover to persist, it is good to let them reach at least bud stage and to come to early flower at least once a year. Grasses can be cut just about anytime, with the exception of North American bred Timothy and Smooth Bromes. For excellent quality, cut grasses before head emerges as quality will rapidly decrease after this point.

#### **CUTTING/GRAZING HEIGHT**

Even though grasses can be cut almost anytime, most species should not be cut or grazed shorter than 3" to 4" from the soil surface, because the plant's energy reserves are in the base of the stem and this is needed for effective regrowth. In addition, forage quality is almost always the lowest in the base of the plant.

Because of their tactile lips and teeth, horses can quickly and easily graze a sward below optimum. For best results keep grazing areas small and move the horses frequently, allowing adequate rest and regrowth of the pasture.

## GET YOUR SEEDS STARTED RIGHT!

#### **MYCO SEED TREATMENT**

MST is an all natural, non-GMO, dry blend of plant beneficial bacteria and fungi, including Mycorrhizae and a nutrient package to support them in their initial stages of growth.

#### **GROPAK**

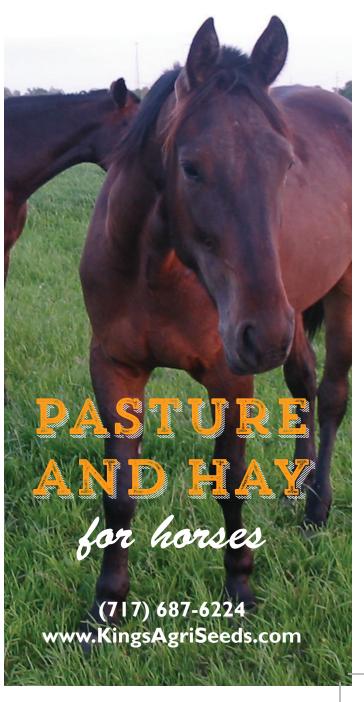
A hopper box seed treatment that replaces talc and graphite and speeds plant establishment. Improves the soil environment for germinating seeds. Extremely fine freeze dried powder formulation coats even the smallest seeds with complexed nutrients





1828 Freedom Rd | Lancaster, PA 17601 (717) 687-6224 www.KingsAgriSeeds.com





## HAY MIXTURES

#### **KING'S HAYMASTER**

A balanced mixture of leafy late heading grasses and traffic tolerant alfalfa. This mixture consists of a combination of King's high quality alfalfas, premium late heading orchardgrass, brome and timothy.

#### **SALE TOPPER GRASS MIX**

Grass mixture that is a great complement for new alfalfa and/or clover seedings. Containing two late heading orchardgrasses, one early maturing timothy and one late maturing timothy. This makes very marketable hay that throws a few heads over multiple cuttings.

#### **HIGHLAND HAY**

Alfalfa grass mixture that will handle heat and drought well. An excellent Mid-Atlantic mix, but will also work very well in northern climates. Makes great auction hay that feeds well.

### **EQUIFLEX FORAGE**

A new lower energy perennial mixture designed for horses. This mix can be used either as hay, or a grazing mixture. Easy to dry!

#### **ALFAMATE**

An all grass mix that can be used either alone or with legumes such as as alfalfa. This mix makes a very soft, palatable hay.

## **GRAZING MIXTURES**

#### **HORSE SUPREME**

This pasture mix consists of palatable grass varieties, proven to tolerate shorter grazing. Mix is adapted to varying soil types and contains meadow brome, orchardgrass, perennial ryegrass and Kentucky bluegrass. Please note: Mix contains a small amount of white clover for nitrogen fertility.

#### **EQUINEMASTER-PADDOCK**

Mixture is designed specifically for exercise areas as it is rugged and will not get clumpy. It is slower growing and endophyte free. Combines soft leaf tall fescue, perennial ryegrass and traffic tolerant Kentucky bluegrass.

#### **EQUIFLEX FORAGE**

A new lower energy perennial mixture designed for horses. This mix can be used either as hay, or a grazing mixture. Easy to dry!



## DIVERSIFY YOUR HAY PORTFOLIO

Have you ever considered the depth of your hay fields portfolio? Just as diversity in business helps limit risk, diversifying your hay fields helps you weather the all-too-familiar challenges that come with making hay. With many different forage species available, hay programs can easily be diversified by strategically taking advantage of differing maturities of various species.

By incorporating early and later maturities onto your acres, the harvest window can be widened as early maturing fields can be harvested with ample time before later maturing fields are ready to harvest. On operations with many acres to cut, this can be vital in maximizing both the quality and quantity of hay produced. Similarly, if rain keeps one maturity group from being cut at peak time, it is more than likely that the other maturity class will have better weather when it is ready to be harvested. Below is a summary of maturity patterns for straight common hay cultivars to aid in developing your hay portfolio:

ORCHARDGRASS: Early, medium, and late maturing orchardgrasses are available on the market with up to two weeks' difference between early and late maturity dates. Late maturing orchardgrasses pair well with alfalfa. Some southern producers prefer early maturing orchardgrasses as they can put on most of their first cutting growth and replenish resources before it gets hot.

TALL FESCUE: As a whole, tall fescue matures later than orchardgrass. However, later maturing varieties such as Kora and STF 43 still pair well with late heading orchardgrasses.

**TIMOTHY:** There is a wide difference in maturity dates between early and late timothies. Early timothy varieties, like Zenyatta, can be paired with alfalfa or late orchardgrasses while late varieties will mature after fescue.

smooth brome: Smooth brome matures very late. Even if harvested after the ideal date, brome grass holds its quality better compared to other hay varieties. Since it is advised to let it go to seed once per year and is similar to timothy in that most of its production comes in the spring, smooth brome can be paired with timothy if limited management later in the year is desired.

Regardless of if you plant a straight variety or a mix, use different maturity hay species to your advantage to strengthen the resilience of your hay operation.