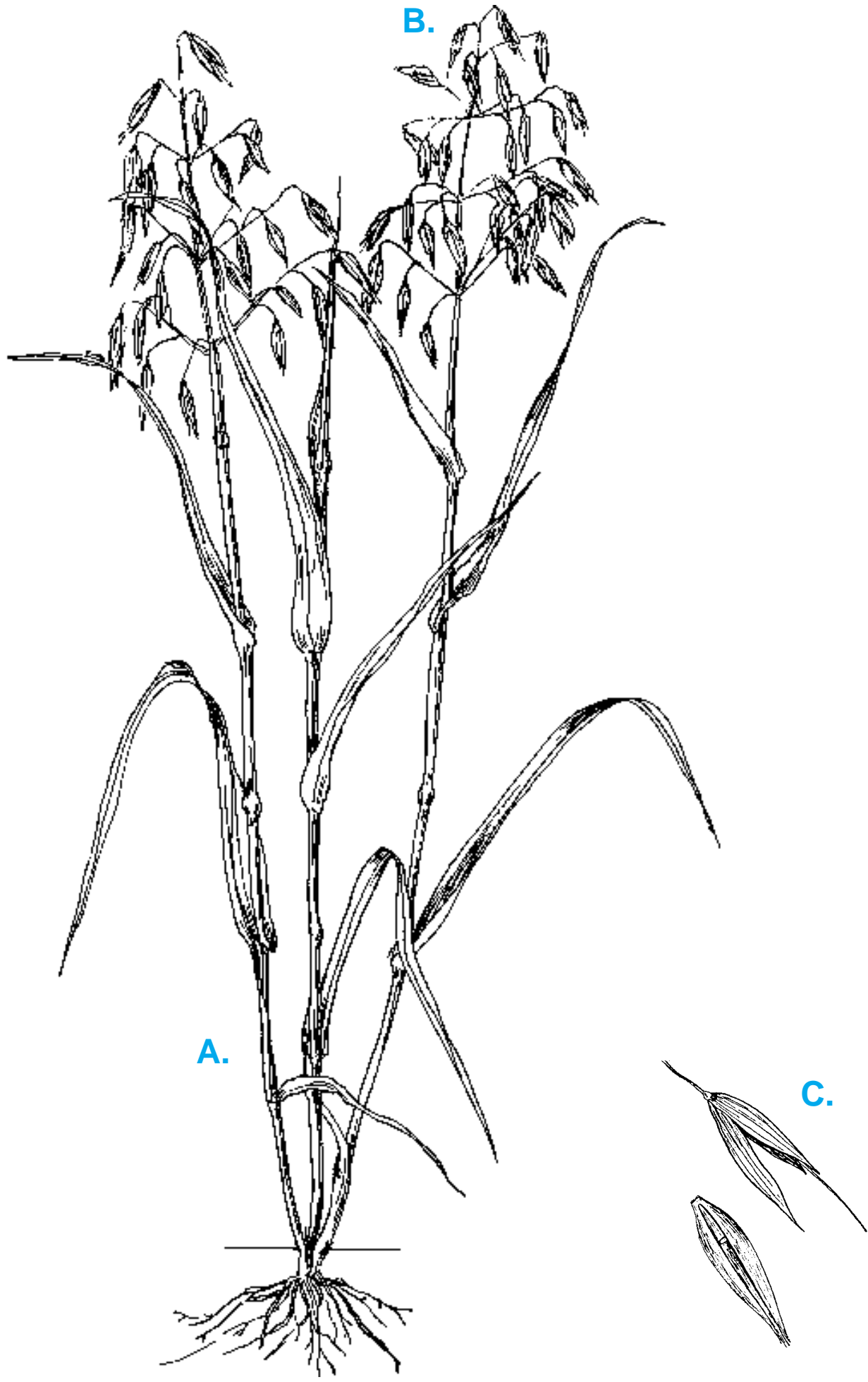
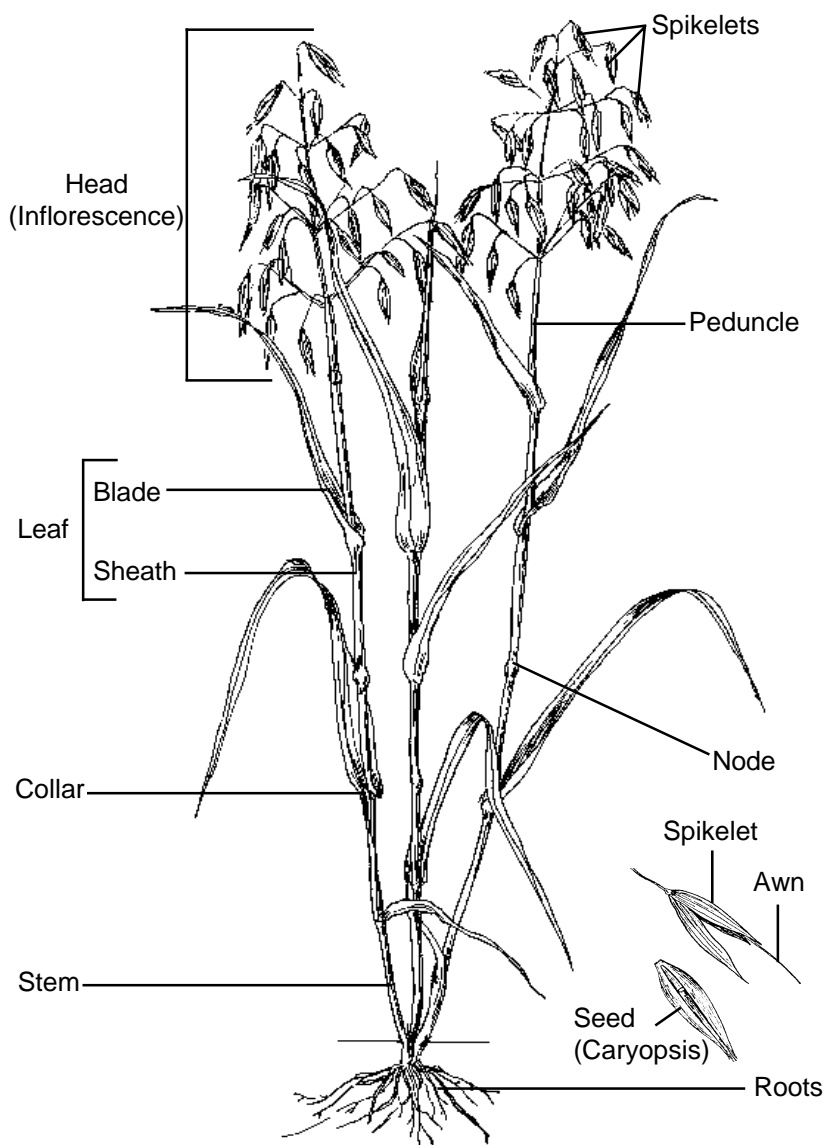


OATS



OATS



ON THE FRONT

A. Oat Plant

Like other small grain crops, the oat plant is an annual grass which produces three to five hollow stems. The stems have seed clusters or flowers on their branched inflorescence, or head. The plant grows two to four feet tall under normal conditions.

B. Oat Head

The oat head is a cluster of branches called a panicle. Two or more seeds (caryopsis) contained in a spikelet are located at the end of each oat panicle branch.

C. Oat Seed

Oat seeds can vary in size. Seed color may be white, yellow, red, gray or black. Minnesota grows only white and red oats. Some varieties have short, plump kernels while others look more like rice and are longer and more slender. A paper-like tissue commonly called a hull covers each seed. A bushel of oats typically weighs 32 pounds.

Oats

Oats are used for animal feed and for human food. Oats are a very popular food for horses. Oats were discovered thousands of years ago in Egypt. They were once considered a weed and were some-

times used in medicines. The crop became popular with farmers because it is easy to grow, harvest and feed to animals. In the mid-1800s, oatmeal began to gain importance as a breakfast food. Since then, more oat products have been developed and their nutritional qualities are popular among health-conscious people. Within the last ten years, the United States has become a net importer of oats, mostly from Canada, Sweden and Finland. This is due to less production in the United States and a growing demand for food quality oats.

Adaptation

Many producers choose to grow oats because they fit into most crop rotations, do well on a wide range of soil types and help protect land from soil loss. Major oat producing states are South Dakota, North Dakota, Iowa, Minnesota, Wisconsin, Pennsylvania and Ohio.

Planting

In Michigan, oats are usually planted after corn and as a "nurse crop" when seeding alfalfa and other small seeded grasses and legumes. A machine called a grain drill is used to plant most oats. Spring oats are planted at 90 to 100 pounds per acre as early as March. In Minnesota, oats are usually planted late March to May. Fall oats (red oats), grown farther south in the United States, are planted between October and December.

Harvesting

Most oats grown in the United States are harvested for grain with a machine called a combine. Oats also can be cut at the dough stage for whole plant hay and fed to animals. At this stage, the oat seeds feel like dough when they are rolled in your hand. Oats cut at the milk stage are used as a wet feed, or silage, for animals. Oat seeds at the milk stage are filled with a milky fluid. In Michigan, oats for grain are harvested in late July or early August.

Milling

Like other grains, oats must go through a process called milling before they can be used for human food products. When oats arrive at the mill, they are cleaned to remove other seeds, weeds and sticks. Next, they are dried and the hulls are removed. Then they are cut, rolled, flaked or ground into flour.

Products made from oats include hot and cold breakfast cereals, cookies, breads, granola and baby foods. The hulls contain the chemical furfural which is used to make certain plastics.

Did you know . . .

- Some oat groats (the kernels inside the hulls) are sliced and pre-cooked with water for instant oatmeal. Much of regular "old fashioned" oatmeal is made by rolling the oat groat to make flakes.
- Oat straw (plant stems) are used for animal bedding or as grass mulch in landscaping/construction projects.

