In their concern over the freshness of food, consumers have increasingly advocated open shelf-life dating—the use of dates on a can or package of food that gives the consumer some idea of when a product was packed or should be sold or used. Although such a step appears simple and sensible at first glance, it entails many scientific and financial uncertainties and involves some complex choices.

The Senate Committee on Commerce, Science, and Transportation asked OTA to assess the feasibility of open shelf-life dating of food and to provide Congress with the necessary information to adequately address this area of food labeling.

This assessment analyzes: consumers’ perspectives on open-date labeling; benefits and costs; alternative systems and techniques; alternative criteria and scientific tests to establish open dates; enforcement mechanisms and liability related to open-date labeling; and options available to Congress.

CONSUMER CONCERNS

Ever since the vast majority of Americans became urbanized, consumers have had no sure way of knowing how fresh their food really is. Since they did not grow it themselves or personally know such factors as its age or storage condition, they have had to rely on assurances that wholesalers and retailers were abiding by some system that would eliminate food that was no longer fresh. Fresh food refers to food in which the quality has been unchanged from its initial state. Even under ideal conditions some foods lose their freshness within 2 or 3 days of being packed, while other foods may remain fresh for over a year.

Recent studies have shown that, indeed, consumers are concerned over whether or not the food they purchase is fresh. A U.S. Department of Agriculture (USDA) consumer survey in 1971 showed that 20 percent had complaints about food product freshness; a Nielson survey in 1973 turned up 50 percent with such complaints. A 1978 survey further supported this concern by noting that of all the problems on the minds of consumers when they shop for food, making sure that food in supermarkets is fresh heads the list.

Facts that lend support to such concerns are scarce, however. There are no nationwide statistics on the amount of food sold that is not fresh, although there have been some individual State studies that indicate there is a problem.

For example, a study of 25 supermarkets in Minnesota showed that all of those stores had some outdated food on their shelves. Another study in that State found that 44 percent of the baby formula being sold was over age and that since 64 percent of the store managers could not read a coded date, they could not rotate the stock. These findings led the State to adopt mandatory open shelf-life dating for some foods.

Open shelf-life dating means the use of legible terms such as a day, month, and year as an indication of when the food was packaged or by when it should be sold or used. Such dating is considered by most people to be a measure of food freshness. It does inform the buyer about the time lapse between packaging and purchase or use and, to the extent that such time lapse is synonymous with quality loss, of the quality or freshness as well. However, such a time lapse is not necessarily the only factor leading to quality loss—i.e., deviation from freshness. Therefore, an open date is not an absolute assurance of freshness—but it can be an indication.

Dating of food is far from being a new concept—in fact, it started back in the early 1930's. However, the dates have usually been in coded form, based on a color-keyed or number/letter system. The codes were originally designed to aid in controlling food inventories and to assist in any product recalls, such as for contaminated foods.

Consumers complain that since they cannot interpret the codes, they cannot tell whether or not the food they are buying is fresh. Indeed, sometimes employees at both the retail and wholesale level cannot read the codes either and thus are unable to use them as a means of keeping stocks in-date.

All indications are that consumers do want dates they can understand. For example, in 1977 the New York Consumer Protection Board published a report translating food manufacturers’ freshness codes. The Board received over 100,000 requests for copies of the report.

Currently, no Federal policy exists on open dating. There is wide variation among the 21 States and the District of Columbia that have some form of mandatory open dating. For example, different States require different products to be dated, require different dates for the same products, and the same dates can have different interpretations. In addition, none of the States seem to have done “before and after” studies of open dating.

Even where not required by State law, some manufacturers have chosen to voluntarily open date their products. However, since there are no industry guidelines, there is no uniform system.

The result is often consumer confusion. For example, a survey conducted for OTA shows that three out of four consumers can correctly identify the type of date on milk. But only one in four knows the type of date on breakfast cereal, and only one in three knows the type of date on ground beef. Of course, milk is more often open dated than are breakfast cereal and ground beef.

To further complicate matters, there is no scientific body of knowledge to accurately determine dates for various products, no consensus on which type of date or dates—“pack” (when food was processed or packaged for retail sale), “sell by” (the last date a food product should be sold), “best-if-used-by” (the date after which food is no longer at its most acceptable level of quality), or a combination of these—to use for which product, or even which products to date at all, and no real guidelines as to how to display the date.

What appears at first to be a simple task of converting code to open dates readily becomes complex with many unanswered questions.

Even though no action has been taken at the Federal level, there has been and contin-
ues to be much congressional and executive agency interest in open dating. Bills have been introduced in the U.S. Congress on food labeling that would require open dating. However, only the Senate has approved such legislation.

In 1978, joint hearings were conducted by the Food and Drug Administration, USDA, and the Federal Trade Commission on food labeling issues. Over 9,000 written responses were received, 5,000 of which were from consumers. Preliminary results of the consumer responses indicate that consumers do want some form of open dating.

BACKGROUND

State Practices

Some form of open-date labeling is required in 40 percent of the States, including the District of Columbia (table 1). But more revealing than the number of States that have open dating are the food products covered and the type of date used.

Perishable foods, such as fluid milk, are the most common food products open dated. In 21 States with some form of mandatory open dating, 12—or 60 percent—have laws limiting coverage to fluid milk and/or milk products.*

Open-dating laws or regulations in seven States and the District of Columbia apply to a broader class of food products. One State, Massachusetts, includes both perishables and nonperishables, or long shelf-life foods.

The type of date used varies by State, but the majority either require or suggest a sell-by date, which is the last date a food product should be sold. Seventeen States and the District of Columbia fall into this category.

There is some variation among the States, however, in the requirement for sell-by dates—particularly for fluid milk and/or milk products. For example, the New Mexico law states that fluid milk and cream containers shall be labeled “with a legible sell-by date not to exceed 14 days including the date of packaging for pasteurized products and 5 days for raw products." By contrast, the Maryland law requires all pasteurized milk products to have the term “sell by," which is designated as a date “7 days after the day of pasteurization."

In addition to the 21 States requiring some form of open dating, some food manufacturers voluntarily open date their products. Some use a pack date, others a sell-by date, and still others a use-by or best-if-used-by date. Some explicitly indicate that it is a sell-by or use-by date, while others only show a date.

Therefore, in some areas of the country, a portion of the food supply has some type of open date, while in other areas, food does not carry any date. Even among the States requiring open dating, the same date can have different interpretations. And in voluntary open dating by industry, there is no guidance as to: 1) which products to date, 2) which date to use, 3) how to display the date, and 4) how to scientifically determine the date. In sum, there is no uniform system.

Practices in Other Countries

In contrast, many other countries and international organizations have established requirements for dating of food products. For example, open dating, with or without code dating, is mandatory for prepackaged con-

*Perishable foods have a short shelf life, usually less than 30 days. Semiperishable foods have a shelf life of between 1 and 6 months. Nonperishable or long shelf-life foods have a shelf life of more than 6 months.
Table 1.--Summary of Open-Date Labeling Requirements by States, 1978

<table>
<thead>
<tr>
<th>State/locale</th>
<th>Primary products</th>
<th>Form of open date</th>
<th>Effective since about</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>Dairy</td>
<td>Sell-by</td>
<td>1975</td>
</tr>
<tr>
<td>California</td>
<td>Dairy</td>
<td>Sell-by</td>
<td>1973</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Milk</td>
<td>Sell-by</td>
<td>1973</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>Perishable products</td>
<td>Sell-by</td>
<td>1974</td>
</tr>
<tr>
<td>Florida</td>
<td>Dairy</td>
<td>Sell-by</td>
<td>1973</td>
</tr>
<tr>
<td>Georgia</td>
<td>Milk, eggs</td>
<td>Sell-by</td>
<td>1974</td>
</tr>
<tr>
<td>Maryland</td>
<td>Milk</td>
<td>Sell-by</td>
<td>1971</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Perishable &amp; long shelf life</td>
<td>Use-by or sell-by</td>
<td>1979</td>
</tr>
<tr>
<td>Michigan</td>
<td>Perishable products</td>
<td>Sell-by</td>
<td>1969</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Perishable products with shelf life&lt;90days</td>
<td>Sell-by or use-by</td>
<td>1973</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Eggs</td>
<td>Pack</td>
<td>1973</td>
</tr>
<tr>
<td>Nevada</td>
<td>Dairy</td>
<td>Sell-by</td>
<td>1973</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Cream</td>
<td>Use-by</td>
<td>1973</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Dairy</td>
<td>Sell-by</td>
<td>1977</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Milk</td>
<td>Sell-by</td>
<td>1977</td>
</tr>
<tr>
<td>Ohio</td>
<td>Perishable products</td>
<td>Sell-by</td>
<td>1977</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Meat, eggs</td>
<td>Sell-by</td>
<td>1977</td>
</tr>
<tr>
<td>Oregon</td>
<td>Perishable products</td>
<td>Pack or sell-by</td>
<td>1975</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Milk</td>
<td>Sell-by</td>
<td>1975</td>
</tr>
<tr>
<td>Virginia</td>
<td>Dairy &amp; infant formula</td>
<td>Sell-by</td>
<td>1974</td>
</tr>
<tr>
<td>Washington</td>
<td>Dairy &amp; others</td>
<td>Sell-by</td>
<td>1974</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Smoked fish</td>
<td>Pack</td>
<td>1971</td>
</tr>
</tbody>
</table>

Note: This regulation is presently being challenged in court.

*1979 for perishable foods; 1980 for frozen foods; and 1981 for remaining long shelf-life foods. These dates may change depending on the court’s decision concerning the legality of the regulation.

Source: OTA survey.

sumer food items expected to have a short shelf life in practically all developed countries—with the United States a notable exception. In the developing countries, the same trend applies, particularly for foods intended for export, except that open dating is not confined to short shelf-life items.

Some other countries have already moved from simply code dating to open dating for long-life products. For example, Japan, Venezuela, and Sweden, while allowing codes, require that the pack date also appear in an "open" form.

The Codex Alimentarius Commission, the global organization for food-labeling standards, states a general preference for open dates but requires them only on infant’s and children’s foods. The European Economic Community recently adopted open dating for nearly all food products, with some exceptions. (See appendix D for a breakdown of open dating throughout the world.)

In view of these international developments, the lack of a U.S. policy on open dating could cause problems and lead to confusion in future food trade. Therefore, the issue of open dating has international as well as domestic implications.
FINDINGS AND CONCLUSIONS

Overview Findings

1. There is little evidence to support or to negate the contention that there is a direct relationship between open shelf-life dating and the actual freshness of food products when they are sold.

2. The pressure for open shelf-life dating comes from a consumer perception that such dating ensures food freshness and that industry should disclose its coded dates.

3. Deterioration in food quality is affected by environmental factors such as temperature, humidity, and light in relation to time. Ideally, dating information should reflect on these factors, but the technology to measure their influence inexpensively is in various stages of development and is not likely to be applicable in the near future.

4. Open dating is applicable for all food categories because all foods deteriorate. For most perishable and semiperishable foods the major modes of deterioration cause sensory quality loss such as color loss or off-flavor development, which can be easily recognized. For long shelf-life products, a major mode of deterioration is nutrient loss, such as vitamins A or C, which cannot be recognized by consumers. In addition, most long shelf-life foods are packaged such that it is not possible to examine contents for sensory quality loss before purchase.

5. Information gaps exist on: a) the amount of food sold nationally that is not fresh, b) the experience of States that have initiated open-dating programs, c) the scientific base to determine and monitor a freshness date, and d) the costs of open dating on a product-specific basis.

Specific Findings

Benefits

1. Open dating encourages better handling practices by wholesalers, retailers, and consumers by expediting the sale or use of food near the end of shelf life. This can result in a decrease of consumer complaints about buying spoiled or stale foods. Indeed, a USDA study found that such complaints decreased by 50 percent after the introduction of open dating.

2. Open dating can increase consumer confidence in the freshness of food purchased. In the same study, USDA found that the reduction in consumer complaints about spoiled or stale foods was reported for both open-dated and non-open-dated food in the same store. Apparently, because information was available for some foods, shoppers had more confidence in the freshness of all foods.

3. Better handling practices attributed to open dating could minimize nutrient loss. A processor could estimate the length of time the product would be in the distribution system and, given the environmental conditions, determine how these factors would affect the loss of unstable nutrients, such as vitamin C.

4. There is little or no benefit derived from open dating in terms of improved microbiological safety of foods. For foods in general, microbiological safety hazards are a result of processing failures, contamination after processing, and abuses in storage and handling. These factors are usually independent of the age of the product and have little relationship to an open date.
Costs

Very little research has been done to determine costs of open dating. These findings are based on the best estimates of academic and industry shelf-life experts and experience by industry and Government with nutrition labeling.

1. A major initial cost in adopting open dating is establishing a reliable date. Estimates are approximately $100,000 for each perishable and semiperishable food and $200,000 for each long shelf-life food (1979 dollars).

2. Major costs to wholesalers and retailers would be for employee time to inspect shelves for out-of-date stock and then dispose of such stock.

3. Enforcement costs for the Federal Government could vary from practically none to more than $500,000 per year, depending on the enforcement system and the extent to which the system were mandatory.

4. Based on nutrition-labeling experience, total costs of adopting open dating would be small on a per-dollar sales basis but nonetheless may add from 0.1 to 1 cent to the cost of each package of food. In 1975, the average cost of establishing nutrition information per dollar of sales was .004 cents, and the average continuing cost of nutrition labeling, which involves complex testing procedures and more information to be printed on the label than does open dating, was a minimal amount—especially once it was established. The same should be true for open-date labeling.

Open-Dating Techniques

There are many possibilities in converting codes to open dates. The date could be a pack date, sell-by date, best-if-used-by date, or a combination of these.

1. A pack date is the day, month, and year the food product was processed or pack-aged for retail sale. It is of minimal value to consumers in that it provides little information as to freshness or how long products should remain at acceptable quality. A pack date is, however, the easiest and least expensive for industry to implement.

2. A sell-by date is the last date a food product should be sold in order to allow a “reasonable” length of time for consumer use. This date is appropriate for perishable foods such as milk and dairy products because they have a short shelf life. It is the most useful date for wholesalers and retailers in their inventory control, since it states the last day of sale. However, it does not indicate to the consumer when foods should be used. Because it is currently being used on many perishable foods, it could easily be implemented by industry for products with a short shelf life.

3. Best-if-used-by date is the date after which food is no longer at its most acceptable level of quality. It is the preferred single date by consumers and provides the most useful information on quality. It is more appropriate for foods that have a long shelf life. It is, however, the most difficult for wholesalers and retailers to use in inventory management because they must subjectively determine allowances for home storage in order to determine the last day of sale.

This date is presently used on some semiperishable and long shelf-life foods. However, the full implementation of this kind of date may require as much as a 2-year period to scientifically establish it for a given product at a cost of $200,000 per product.

4 Combination dates are preferred by consumers to single dates. They provide the most information, especially a sell-by and best-if-used-by combination. Combination dates, however, have all of the disadvantages of single dates.
Criteria in Establishing Open Dates

There are several criteria that can be used to establish sell-by and best-if-used-by dates including: sensory quality, nutrient loss, and degree of perishability.

1. **Sensory quality**, such as color, odor, and flavor, is the most discernible criteria for establishing sell-by and best-if-used-by dates. For some foods, sensory quality change may also be an indicator of nutrient quality. However, regulatory agencies would probably not be able to use sensory criteria to determine whether a food that is still in date is out of compliance with some quality level, since tests to determine whether a given product is of some designated sensory quality require taste panels trained in specific areas. This is not applicable to regulatory methods. However, if a physical or chemical method could be correlated highly with a sensory test, compliance testing would be simplified.

2. **Nutrient loss** would be easier to measure than would sensory quality, since it can be done objectively in an analytical laboratory. However, nutrient content of the same food commodity can vary; also, some foods are naturally poor in some nutrients, are not eaten to provide those nutrients, and may be of good quality even if they lost a certain percentage of the nutrients. Thus, critical nutrient loss methods are useful only where they are highly correlated with overall sensory quality losses.

3. **Perishability time categories**, which establish a date by a set number of days after processing, are more relevant for highly perishable foods that have a minimum of processing. However, modern processing conditions and new types of packaging can increase the shelf life of some foods to the point where time categories are not meaningful unless continuously modified to reflect new circumstances.

Enforcement and Liability

Open dating raises some unique problems of enforcement and liability. Enforcement, for example, raises two serious points: 1) enforcement with respect to quality standards in establishing the date and 2) sale of a product after the date. Liability in open dating presents unique difficulties because most other labeling requirements only involve the processor, but open dating involves wholesaler and retailers as well. This leads to questions of who is ultimately liable and whether existing law is adequate to determine liability.

In general, the findings in these areas are:

1. An enforcement system where processors establish reasonable dates that must be approved by the appropriate executive agency has many advantages over a system where the enforcement agency performs the necessary laboratory test to determine the validity of open dates. It is less expensive, would not lead to a decline in quality specifications for the date, and would avoid questions of a processor's liability.

2. Consumer complaint-based enforcement for products sold at full price after the stated date (i.e., the consumer complains to the appropriate authority) is less costly than Government agency inspection for out-of-date products and can be very effective.

3. Some foods that are beyond date could be sold to consumers, perhaps at a reduced price, because the foods will still be safe.

4. Federal/State cooperation on enforcement is feasible. However, in order to have each State enforce a Federal mandatory program, the Federal Government may have to provide 100 percent of the costs. If not, the States would prefer enforcement at the Federal level.

5. There have been no court decisions on the questions of liability for deteriorated
food that has been open dated. If there were a Federal requirement for open dating, the Federal Food, Drug, and Cosmetic Act (FDCA) seems to provide several mechanisms by which to ensure compliance, especially as it relates to adulteration and misbranding. However, if literally interpreted, FDCA does not provide for abuses to food products in distribution that could cause the date to be involved. In addition, the meaning of a sell-by date is somewhat vague. This date suggests that the product can be consumed for a reasonable period of time after the date with no recognizable difference in the food’s quality. Omission of information disclosing the ensuing consumption period could constitute the omission of a material fact rendering the product misbranded. These areas should be specifically addressed in the legislative history of any open-dating provisions.

CONGRESSIONAL OPTIONS

There are three basic options for Congress to consider in the open-dating issue. Congress can:

1. Allow the present voluntary system to continue by taking no action. Under this system, the private food sector is developing and adopting open-dating standards.

2. Choose a mandatory system, which would require the use of specific open dates.

3. Choose a voluntary/mandatory system, whereby the Federal Government develops guidelines, and processors who elect to open date are required to follow those guidelines.

If Congress chooses Options 2 and/or 3, it can either specify the detail or leave it up to others, such as an appropriate regulatory agency or an industry association. In other words, Congress can legislate which type of dates for which food and how those dates are to be determined, or it can delegate the task.

These options are not mutually exclusive. Congress can select one option, two options, or a combination of all three. For example, Congress can decide to leave open dating of bulk fresh produce as is, under a voluntary system; make open dating of other perishables and semiperishables mandatory; and place long shelf-life foods under a voluntary/mandatory system. In addition, the type of date selected can vary by individual product. In short, many potential combinations exist (see chapter IX for a more detailed discussion).

Voluntary System

If Congress opts for the status quo, it will be supporting a system in which the private food sector will presumably continue to develop and adopt open-dating standards.

**Pros:** The principal advantage to this system is that it allows processors flexibility in determining whether or not to open date and minimizes the cost to the Federal Government and industry, compared with the other systems. Moreover, under this approach 21 States and the District of Columbia have adopted open-dating laws over the past 8 years and have done so with a minimum amount of regulatory control and enforcement.

This option would allow time for specific research to better gauge the cause-and-effect relationship between open dating and spoilage reduction. Specific areas in which further data is needed include: the amount and kinds of food sold nationally that are not fresh, better quantification of costs, and an improved scientific base to accurately deter-
mine freshness dates. The experience of States that have adopted open shelf-life dating will be helpful in obtaining the above data.

Cons: The most serious perceived disadvantage of this approach is the lack of uniformity in deciding: 1) which products to date, 2) which date to use, 3) how to display the date, and 4) what scientific guidelines should be used to determine the date. In addition, inventory-control procedures are relatively more difficult, which could result in more food waste than under a mandatory system. Also, some industries may not adopt the program.

Mandatory System

A mandatory system would require the use of specific open dates.

Pros: The principal advantages of this system is that a mandatory system would provide uniform regulations; tighten inventory control, which could reduce food waste; provide higher quality and nutritive levels for more food; and set criteria for calculating accurate open dates.

Cons: The principal disadvantage is that, with the exception of using a “pack date,” it would be difficult to implement in the short run of 2 to 5 years for semiperishable and long shelf-life foods because of insufficient data on shelf-life stability of these product categories. However, since many perishable products are presently open dated, data are available to implement a mandatory system for perishables.

Other disadvantages would be: 1) costs would increase to Government for developing and enforcing regulations and to industry for compliance, compared with a voluntary/mandatory system, 2) out-of-date products maybe usable but returned and wasted (unless special arrangements are made for their use), 3) development of regulations would be time-consuming for both Government and industry, 4) innovation in terms of incentives to develop new processing techniques to increase shelf life could be stifled, and 5) small processors could be forced out of business.

If a mandatory policy is selected, Congress must decide who should specify the technique, criteria, and type of enforcement system. To specify these areas, there are two basic ways Congress can legislate. Congress can either specify the details itself or charge others with the responsibility for doing so.

Congress Specifies the Detail

Open-dating techniques. Congress could specify the use of one or a combination of the following open-dating techniques: pack date, sell-by date, best-if-used-by date, or some combination.

Pros: The advantages of a mandated technique by product or product category include uniformity in all States and less potential consumer confusion.

Cons: The disadvantages include:

- It would be more difficult to change a technique over time than if specifications were left up to the appropriate regulatory agency.
- A continuous legal and/or legislative process may arise in an effort to change dates over time. This could be an expensive process for industry, Government, and ultimately for consumers.

Open-dating criteria. In addition, Congress could decide which criteria must be used for which date or dates. In other words, which categories of sensory quality, nutrient loss, and perishability to use.

Pros: The advantage of mandating specific criteria used in establishing dates includes standardization among products and/or product categories.

Cons:

- Neither Congress nor the Secretary of the appropriate executive branch agency currently may have the technical ability and data necessary to specify criteria for each food item.
Technological innovation could be stifled because criteria could not be easily changed.

The criteria may not likely be based on sensory quality parameters because it would be more difficult to regulate than would other criteria. This could be an advantage for some products and a disadvantage for others, depending on what test index is chosen.

An alternative to mandating specific criteria is to allow a range of criteria. The advantage of mandating some range of criteria is that both sensory and nutritional criteria would likely be included within the range. The disadvantage is that there would not be standard criteria for similar products.

**Enforcement and Liability.** Congress has two basic options for determining the enforcement system and for establishing liability as it relates to open-date labeling:

- **Use Existing Laws**
  
  **Pros—Enforcement:** Allowing the existing laws to specify enforcement simplifies the procedure and minimizes the cost and time for both Government and industry.
  
  **Cons—Enforcement:** Existing law does not specify what should be done in the case of: a) food that is still edible but past date and b) food that is beyond criteria but not past date.
  
  **Pros—Liability:** Existing laws covering liability already offer several devices through which manufacturers, wholesalers, and retailers might be held liable for violations of an open-dating requirement.
  
  **Cons—Liability:** Since there is no definitive legislative or judicial definition of the legal significance of an open date, application of existing law remains speculative.

- **Pass New Laws**
  
  **Pros—Enforcement:** Legislating new enforcement procedures has the advantage of allowing Congress to address specific items such as use of State enforcement officials and/or complaint-based enforcement by consumers for beyond-date compliance and disposal of edible food that is out-of-date.
  
  **Cons—Enforcement:** Writing a new law to adequately provide for enforcement increases both time and cost to Government and industry.
  
  **Pros—Liability:** Writing new legislation that specifies liability and penalties, if any, for open-date labeling could provide consumers with more confidence in an open-date labeling system.
  
  **Cons—Liability:** It is a difficult and burdensome task to ascertain liability to the firms responsible.

**Leave Implementation of Detail to Others**

Delegating the specifics to either the appropriate executive agency or the private sector would have the following results: 1) it relieves Congress of the necessity to make these determinations and 2) it would be easier to change a technique over time than if specifications were decided by Congress.

- **Appropriate Executive Agency**

  **—Open-Dating Techniques**
  
  **Pros:** The advantages of this option, as with congressionally mandated detail, include uniformity of the open-dating technique for all food processors producing a single product. Also, the regulatory procedure would allow industry and consumers more involvement than would the detailed statutory approach.
  
  **Cons:** The disadvantages of allowing executive discretion include the potentially large costs in time and money both Government and industry would incur before the regulations could be developed.

  **—Criteria**
  
  The advantages and disadvantages of establishing open-dating criteria are the
same for an executive agency as those discussed for Congress.

**Private Sector**

---Open-Dating Techniques

Individual processors could be allowed to choose the dating techniques and make them defensible to the appropriate Secretary.

**Pros:** Allowing individual processors to have this freedom would allow the marketplace to determine the best system.

**Cons:**
- Lack of uniformity of date types on similar products could confuse consumers and retailers.
- The retailer may have problems using open dating for inventory control when there is a lack of uniformity on similar products.
- Small processors may use pack dates since they might not be able to do the necessary research to establish sell-by or use-by dates.

As an alternative, an industry association could be allowed the freedom to choose the dating techniques and make them defensible to the appropriate Secretary.

**Pros:**
- Date types on similar products would be uniform.
- Consumers could have input into industry association meetings to establish dates, especially if the association decision were subject to Secretarial review.

**Cons:**
- If the system were voluntary/mandatory, it would allow nonmembers of the industry association to do nothing.
- If mandatory and nonmembers of the industry association have not had an opportunity to participate in the process of choosing a technique for dating, this could lead to legal problems such as antitrust or restraint of trade.
- There may be more than one industry association to which one processor belongs, and these associations might establish two different techniques.

---Criteria

**Pros:** The advantages of allowing processors to specify criteria for establishing open dates include:
- Sensory criteria could be part of the input when considered appropriate for the particular product.
- Through the appropriate Secretary, consumers could have a continuing voice in what criteria is used.

**Cons:**
- Secretaries of the regulatory agencies involved would have an additional burden of reviewing the criteria submitted to them.
- Costs to Government could be quite high relative to other options.

---Voluntary/Mandatory System

A voluntary/mandatory system is one in which the Federal Government develops guidelines, and processors who choose to open-date food products are required to follow these guidelines.

**Pros:** This system establishes a mechanism for uniformity to open-date food products, and it provides individual food processors the basic option of determining whether or not to open-date products.

**Cons:** Costs to Government would increase for developing and enforcing regulations and to industry for compliance. Development of regulations would be time-consuming for both Government and industry.

Note that if the Congress chooses this option path, the issues discussed under the mandatory system become relevant.